Policy, Planning, and Research

WORKING PAPERS

International Trade

International Economics Department
The World Bank
December 1989
WPS 319

Would General Trade Liberalization in Developing Countries Expand South-South Trade?

Refik Erzan

General trade liberalization in most developing countries would expand South-South trade, and could as well increase the proportion of this trade in their total — particularly if the most heavily protected sectors were liberalized.

Policy, Planning, and Research

WORKING PAPERS

International Trade

For most developing countries, the proportion of (total and manufactured) exports going to other developing countries has steadily increased since the early 1970s.

Earlier, analysts would have seen this as a reflection of inward-looking trade strategies and regional trading arrangements. Until the early 1970s, most of the relatively outward-looking developing countries did (or had a trend in doing) proportionately less trade with other developing countries, particularly in manufactures.

Since the early 1970s, however, an outward orientation has often gone hand in hand with more South-South trade. The proportionate increase in South-South trade occurred despite relatively higher protection in most developing countries against the very products for which they, as a group, have a comparative advantage.

The "slowing down of the engine of growth" greatly affected the direction of developing countries' trade. But the resumption of growth in the industrial countries did not alter the increasing trend in South-South trade. A new international economic environment had begun to develop.

The structure of tariff and nontariff protection in most developing countries discriminates against products that other developing countries could supply competitively. Hence, across-the-board, nondiscriminatory liberalization would generally favor South-South trade — particularly if liberalization focused on the most heavily protected sectors.

This paper is a product of the International Trade Division, International Economics Department. Copies are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Grace Ilogon, room S8-038, extension 33732 (63 pages with figures and tables).

TABLE OF CONTENTS

Refik Erzan*

The World Bank

I. INTRODUCTION

What is the likely impact on South-South 1/ trade of trade liberalization in developing countries undertaken on a non-discriminatory (most favored nation (MFN)) basis is the broad question addressed in the paper. This is pursued by (i) investigating the historical trends in the share of South-South trade, (ii) briefly reviewing the theoretical underpinnings for the expansion of this trade through non-discriminatory liberalization, and (iii) analyzing the bias in the structure of developing countries' protection with respect to South-South trade.

The question has been previously touched upon in several contexts but without a systematic study of the historical trends in this trade and the structure of protection it encountered. A number of studies under the World

---

*The author gratefully acknowledges the statistical assistance of Azita Amjadi and valuable comments by Bela Balassa, Paul Meo, Julio Nogués and Alexander Yeats on an earlier draft.

The views expressed in this paper are those of the author and do not necessarily reflect the official position of the World Bank, views of its members, management or other staff.

1/ The terms "South" and "developing countries" are used interchangeably throughout the paper and defined in notes to Appendix Table AII.1.

Bank Project "The Direction of Developing Country Trade" (Havrylyshyn, ed. (1987)) suggested that developing country protection was probably the major impediment to South-South trade. 1/ A similar observation was made in connection with developing countries' intra-industry trade and in their capital goods' trade by Havrylyshyn and Wolf (1983) and Havrylyshyn and Alikhani (1989). Concerning the scope for gainful intra-developing country trade, Krueger (1983) notes that "there is considerable evidence that many of the middle-income developing countries persist in protecting their highly labor-intensive industries, such as textiles and footwear, in which they may have lost comparative advantage" (p. 202). Analyzing the possible impact of a preferential scheme among developing countries (GSTP), Erzan, Laird and Yeats' (1988) findings "indicate that developing countries may have their greatest potential for the expansion of intra-trade under the GSTP in many of the same types of products in which they have demonstrated their greatest capacity to penetrate Northern markets over the last two decades" (pp. 1147-1148). 2/

The question also came up in considering whether the relative level of South-South trade was "too" low (Havrylyshyn and Wolf (1983) and

---

1/ For a profile of protection in developing countries, see, e.g., De Rosa (1988), Erzan et al (1989), Finger and Laird (1987) and Langhammer (1983).

2/ See also Langhammer (1987).

Havrylyshyn (1985)). 1/ It was suggested that protection could be a factor, but this was not incorporated in the analysis.

While there was an acceptance that protection might be a major impediment to South-South trade, based on trends up to the early 1970s, it was believed that developing countries with more outward looking trade regimes would have a smaller and declining share of their trade with the South (Havrylyshyn and Wolf (1983) and (1987)). The two propositions taken together implied that, in absolute terms, South-South trade could expand considerably as a result of liberalization in developing countries, yet there would be a bias in favor of the North concerning the relative level of trade expansion. (The current study, reviewing the updated and revised trends, finds no hard evidence for such a systematic bias.)

I.1. Why Worry about the Direction of Trade?

Under plausible circumstances, a reduction in the level of protection and harmonization of its structure would yield welfare gains for the country

---

1/ In the first instance, the relative level of South-South trade was judged against a single norm, the share of developing countries in total world income. Their conclusion was that the level of trade among developing countries was higher than their size or markets alone would predict. The other investigation employed a gravitational approach to explain exports of developing countries to various destinations. Market size (GNP) and distance proved to be significant factors in most of the bilateral flows. The analysis also produced weak evidence that the share of trade among developing countries was somewhat lower than the gravitational pull. This was attributed to the strong comparative advantage statics - along the lines of relative factor endowments - plus the effect of relatively higher protection in developing compared to industrial countries. The latter two factors, however, were not incorporated in the analysis. For several Latin American countries it appeared that their intra-trade was more than what market size and distance would predict, suggesting, inter alia, the impact of regional integration schemes. Yet, these results were not statistically significant.

in question through more efficient use of its resources. Furthermore, liberalization on an MFN basis secures the full realization of potential welfare gains by inducing importers to make their purchases from the cheapest sources. Within this theoretical paradigm and with respect to efficiency/welfare gains, direction of trade, i.e., particular sources of imports and destination of exports, and changes in these resulting from liberalization are immaterial. Judging from revealed preferences, however, in many countries, this does not seem to be the case. For a variety of reasons Governments are concerned about the specific direction of their countries' trade and the possible impact of their policies on this pattern. Consequently, many developing country Governments are intrigued by bilateral, regional, and more recently, "global" preferential schemes among themselves. Efforts to revitalize the Preferential Trade Area (PTA) for Eastern and Southern African States, the Southern African Development Co-ordination Conference (SADCC), the Central American Common Market (CACM), the integration scheme among Argentina, Brazil, and Uruguay and the conclusion of the first round of negotiations under the Global System of Trade Preferences (GSTP) are the recent manifestations of this concern. As a matter of fact, it was the developed countries which were the trendsetters in this approach: the EEC, the EEC-EFTA pact and the more recent US-Canada deal stand out among other similar arrangements.

Among the major motives behind the contemporary initiatives to expand South-South trade are the frustration with and fear of sluggish economic growth and increasing protectionism in the OECD area against the exports of developing countries, and the encouragement from the rapid increase of South-South trade starting in early 1970s.

Mainstream economic thought advocates liberal trade as the best policy for developing countries, and it remains a fact that "...countries that do the best in trade among developing countries are those that do best everywhere ..." 1/ in terms of export performance. Bringing under focus the bias in the structure of developing countries' protection and the potential for South-South trade through non-discriminatory liberalization would give an extra strength to the advice that liberal trade is the best policy.

I.2. The Plan of the Study

The study starts with a review of the previous observations and stylizations concerning trends in the proportion of developing countries' (total and manufactured) exports to the South and factors perceived to be behind these observations (Section II.1.). A rigorous trend analysis is then undertaken in Section II.2., using a specially constructed consistent data set covering 1965 to 1985, for groups of developing countries by geographical region and for the major exporters of manufactures. The results are contrasted with previous stylizations and explanations which were offered to account for regional and cross country differences in these trends.

In Section III, first the theoretical underpinnings for South-South trade and the basis for the expansion of this trade through non-discriminatory liberalization are briefly reviewed (Section III.1.). This is followed by an analysis of the structure of developing countries' protection with respect to

---

1/ Havrylyshyn and Wolf (1987), p. 158, based on the findings of Havrylyshyn's (1985) constant market share analysis.

South-South trade (Section III.2.). The hypothesis tested is whether this structure discriminates against products in which developing countries generally have a comparative advantage.

The concluding Section (IV) summarizes the main findings of the study and discusses directions for further research.

II. TRENDS IN THE SHARE OF SOUTH-SOUTH TRADE

II.1. South's Exports to South: Previous Observations and Stylizations

Previous studies on South-South trade observed a long-term decline in the share of intra-developing country exports in their total exports from around 24 percent in the mid-1950s to about 20 percent in the early 1970s, followed by a reversal, registering 23 percent in 1977 (Hughes (1980)). The pattern was more distinct in manufactures and from 1963 to 1973, the share of developing country exports to each other declined from about 40 percent of their total exports to around 25 percent. Accordingly, starting in 1974, the trend reversed and this share, following a cyclical pattern, moved towards a higher range around 30 percent by 1981 (Havrylyshyn (1985) and Havrylyshyn and Wolf (1983)). 1/

An intuitive explanation exists for the post War decline in the share of developing countries' exports to each other until 1973 and the revival following this period. The initial export drive of developing countries

---

1/ Figures quoted vary depending on whether or not OPEC is included in the South as a market. Furthermore the aggregation level of primary data from which the shares are calculated appears to make a difference.

occurred in labor intensive goods, North being the main destination, in line with the then even more distinct differences in factor endowments between the two groups of countries (see, e.g., Lary (1968), Tuong and Yeats (1980) and Yeats (1989). While most developing countries maintained and even increased their postwar protection levels in this earlier period 1/, the OECD area, through consecutive rounds of multilateral trade negotiations became increasingly open, although tariff cuts in relatively labor intensive goods did not keep up with the overall pace of liberalization (see GATT (1980), UNCTAD (1968) and (1982), and Erzan and Karsenty (1989)).

The 1973 oil shock and the transfer of purchasing power from the OECD area to OPEC explains a considerable portion of the change in the trend concerning the destination of South's exports. 2/ At least two other factors were also at work: (i) relatively higher growth in developing countries as opposed to stagnation in OECD - which will later be discussed with some detail - and (ii) increased use of non-tariff barriers by the industrial countries,

---

1/ See, e.g., Bhagwati (1978) and Krueger (1978).

2/ When OPEC is excluded from the South, the shift in the direction of exports becomes less pronounced (see Havrylyshyn and Wolf (1983) and Havrylyshyn (1985)).

especially in more labor intensive products - a development whose net impact on South's exports remains controversial. 1/

II.1.(i) Differences Among Geographical Regions and Individual Countries

It was also observed that there were considerable differences in the share of South-South trade and in the evolution of this share across geographical regions and individual countries (Havrylyshyn and Wolf (1983)). 2/ Notably, while in Asia and Southern Europe the share of manufactured exports going to developing countries appeared to have a declining trend, there seemed to exist a secular increase for Latin America. 3/

1/ A major surge in protectionism during the last two decades through the use of non-tariff barriers, its discrimination against developing countries' exports and its concentration on agriculture and relatively more labor intensive goods are well documented (see, e.g., Nogues, Olechowski and Winters (1986) and Laird and Yeats (1988b)). Estimates for developing country exports foregone due to the new protectionism in the industrialized countries are put at billions of dollars annually (see, e.g. Laird and Yeats (1988a)). This was the case especially in some sectors such a textiles and clothing (see, e.g., Goto (1988) and Erzan, Goto and Holmes (1989)). However, while this protectionism was an important constraint on the exports of industrially less advanced developing countries to developed markets, as the more advanced ones successfully diversified their exports, the net impact of protectionism on the latter's total exports to North remains a controversial question. There is even an argument suggesting that the NIEs in a perverse way benefited from protectionism as it induced diversification of their productive structure and exports. While there might be some substance in this argument in terms of long run dynamic efficiency, losses due to comparative advantage statics in the short and medium term would overwhelm the benefits.

2/ The results were based on a sample of 33 developing countries including Greece. Israel, Portugal and Spain, which, by now, are generally classified as developed countries.

3/ For 1963, 1975 and 1977, the figures were respectively, 44, 23 and 21 percent for Asia, 33, 25 and 24 percent for Southern Europe and 36, 50 and 51 percent for Latin America.

It was also noted that this distinction was pronounced when the Newly Industrialized Economies (NIEs) of the latter two regions were compared. For instance, it was observed that while the share of Hong Kong's and Republic of Korea's manufactured exports with a Southern destination declined, 1/ the same share increased for Argentina, Brazil and Mexico. 2/

II.1.(ii) Impact of Policy

Based on these and similar observations, (i) regional integration schemes and (ii) inward versus outward-looking trade regimes were pointed out as the factors underlying the differences in the share of exports to the South and in the developments of this share.

> "Observed variation by region, functional groups and individual country indicate that the trend towards declining importance of trade among developing countries in manufactures, though not universal, was found frequently even within the two regions experiencing an increase in the share of this trade, Africa and Latin America. The higher and rising share for Latin America suggest integration as one factor while the lower and sharply declining share for much of Asia and the NICs, plus particular country experiences within each continent, suggest that inward vs. outward-looking trade regimes are another." 3/

Very loosely formulated, the generally accepted hypothesis runs as follows: The more inward-looking countries - which also happen to be the ones keener on regional integration - through a mix of interventionist policies and

---

1/ For Hong Kong, the decline was from 27 percent in 1963 to 14 percent in 1975 and for Korea from 43 to 14 percent during the same period. These shares were reported to have stayed at those low levels throughout 1977.

2/ For Argentina, Brazil and Mexico, this share increased, respectively, from 46, 41 and 31 percent in 1963 to 71, 47 and 38 percent in 1975, and somewhat declined in the following years.

3/ Havrylyshyn and Wolf (1983), p. 354.

high protection-cum-subsidies tried to prematurely move up the ladder rather than fully exploit their static comparative advantage. 1/ These product and factor-market distortions resulted in an emphasis on the production of relatively capital intensive goods and the use of relatively capital intensive techniques. Consequently, the factor content of their exports, especially of manufactures, were biased towards greater capital inputs. 2/ This, in turn, had an impact on the direction of trade. "[T]he effect of protection is to shift production and exports in a more capital intensive direction and, therefore, to increase the proportion of exports going to developing countries. 3/

1/ Most developing countries, up until early 1960s, exported mainly resource based goods. In the following decade, today's most successful exporters of manufactures moved into specialization on labor intensive goods, initially textiles and clothing, then other consumer goods. By the late 1970s relative specialization moved into engineering goods and other products which generally have a higher capital and skill intensity. However, while this sequencing phenomenon was characteristic for the Asian NIEs, the Latin American NIEs by and large jumped over the consumer goods stage. Already in 1963, consumer goods accounted for over one-third of Asian NIEs' exports, this ratio reached a peak of 55 percent in 1973 and started a decline. In the Latin American NIEs, the share of consumer goods' exports was around 2 percent in 1963, it never surpassed the share of engineering goods, and at its height was less than 10 percent. By late 1970s the share of engineering goods was far higher than that for consumer goods (Havrylyshyn and Alikhani (1988)).

2/ Most NIEs had a higher capital content in their exports to the South compared with that to the North (see, Krueger et al (1981) and Krueger (1983) - a phenomenon which could be consistent with conventional trade models even in the absence of distortions (see, Deardorf (1987)). However, the difference in factor content was greater in the case of Latin American NIEs compared to their more outward-looking Asian counterparts (Havrylyshyn (1987).

3/ Havrylyshyn and Wolf (1987), p. 157.

While this chain hypothesis is empirically proven up to its last link, there is only weak evidence on the impact of factor distortions on the direction of trade. 1/ Regional integration schemes did contribute to the expansion of intra-Latin American trade in capital-intensive products. However, this did not require factor market distortions. 2/

II.2. An Update and Revision of the Trends

The South-South share in developing countries' total and manufactured exports were calculated using a complete world trade matrix for the period 1965-1985 which was developed in connection with project LINK. 3/ Besides being an update, the consistency of the underlying data in terms of country and product coverage should bring an improvement in accuracy over the

---

1/ Krueger (1983) concluded that "... it seems clear that the type of trade in manufactures that has been encouraged under regional trading arrangements has generally been more the outcome of the import substitution type of incentives than of the incentives that accompany a genuine outer-oriented trade strategy" (p. 187). However, the case studies in Krueger (1981) did not establish a direct link between factor market distortions and the direction of trade. A more recent study on India by Khanna (1987) asserted that there was no evidence that distortions led to higher exports of capital intensive goods to developing countries.

2/ Nogués' (1983) argument concerning Argentina's direction of trade was that: "... a change in trade policy (from import substitution to export promotion) will in all probability increase the relative importance of trade with DCs because: (a) a significant decrease in protection will diminish the relative importance of preference margins, therefore inducing a switch of exports away from LAFTA and towards DCs; (b) given that DCs have been Argentina's traditional customers for goods produced by exportables industries, manufacturing exports going to those destinations should increase under a strategy based on export promotion" (p. 1037).

3/ Trade Matrix Software and Data Base, UN, DIESA. Contains verified and consistent data by broad economic categories and 79 reporting countries/groups of countries covering total world trade. See notes to Appendix Table AII.1.

observations made in previous studies. Furthermore, the length of the time series data allows us to undertake trend analysis rather than relying on benchmark years.

II.2.(i) Geographical Regions

Figure 1 provides a graphical presentation of the Southern share in the exports of developing countries grouped by geographical regions. 1/ The pattern observed in previous studies, namely a decline in this share up to 1973 followed by an increase, turns out to be characteristic for only Southern Europe (represented by Romania, Turkey and Yugoslavia) and Asia. In the more distinct case, Asia, this share dropped from 32 percent in 1965 to 27 percent in 1973 and gradually climbed to 36 percent in 1985. This picture was somewhat more pronounced yet no different for manufactured exports (defined as SITC 5 to 9) 2/ presented in Figure 1.B. For all developing countries taken together, the share of South-South exports did not show a decline when all goods were considered. The figures were, respectively, 21, 21 and 32 percent for the years 1965, 1973 and 1985. In manufacturing there was an initial decline from 29 to 25 percent from 1965 to 1973 followed by a climb to 34 percent in 1985. These patterns held also when the shares were calculated using data on trade volumes rather than values (see Appendix II, Table AII.1, figures in parentheses). 3/

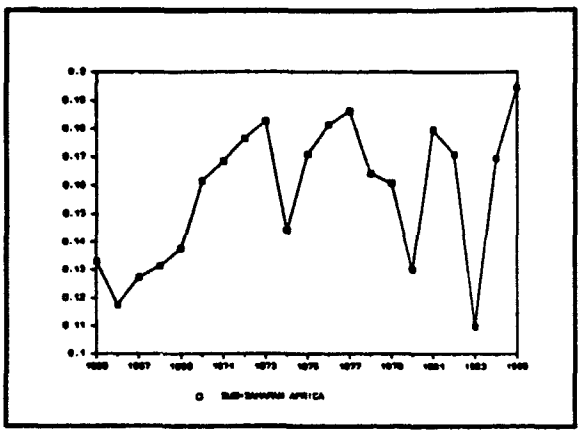
1/ Groupings by geographical regions are defined in notes to Appendix II, Table AII.1.

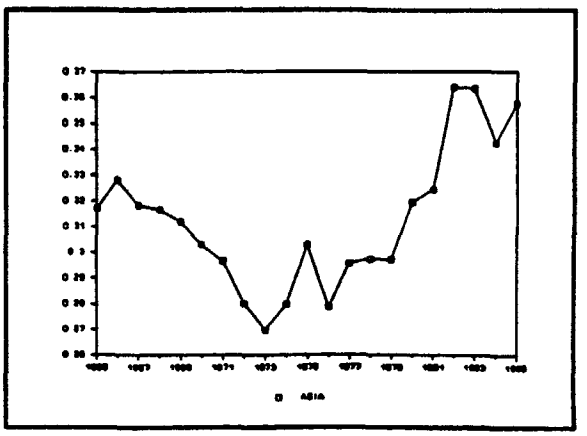
2/ This is a slightly broader definition of manufactures compared to the more conventional one, i.e., SITC 5 to 8 less 68.

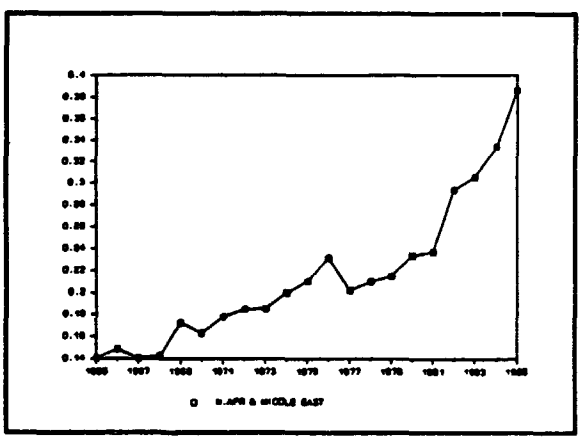
3/ Volume data were not employed in calculating export shares of individual regions because the price deflators used in computing volumes from values merely distinguished exports by groups of suppliers in broad product categories. Hence for individual regions, results based on value and volume were almost identical.

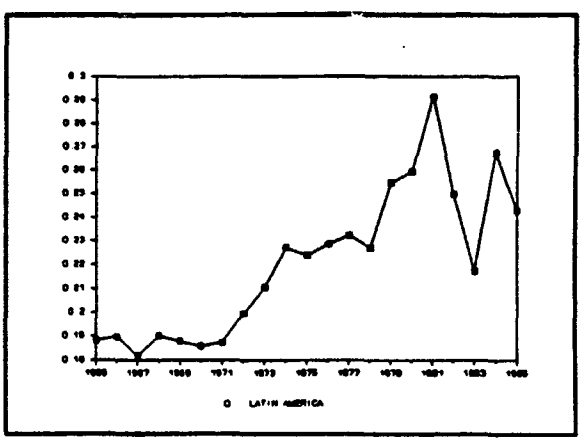
Figure 1: SHARE OF DEVELOPING COUNTRIES' EXPORTS GOING TO DEVELOPING COUNTRIES; EXPORTERS BY GEOGRAPHICAL REGIONS (a), 1965-1985

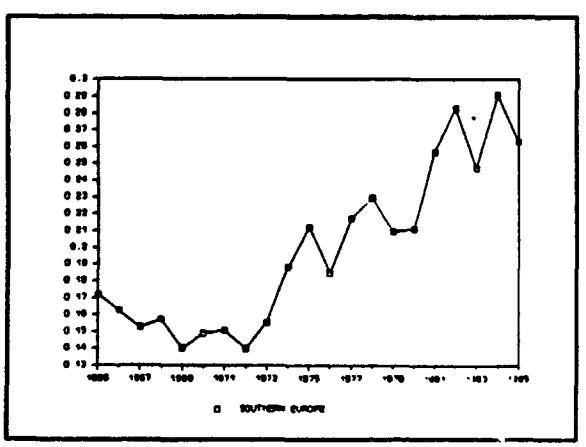
A. ALL GOODS

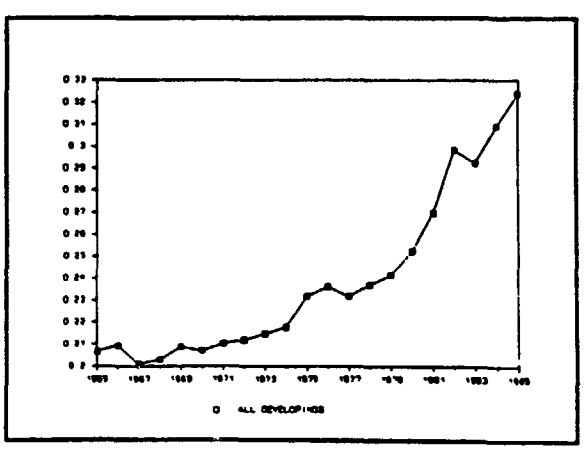




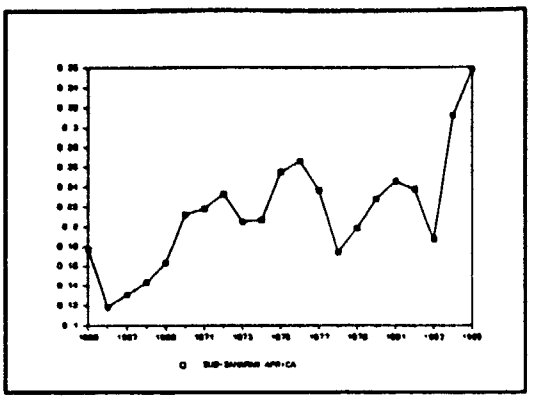


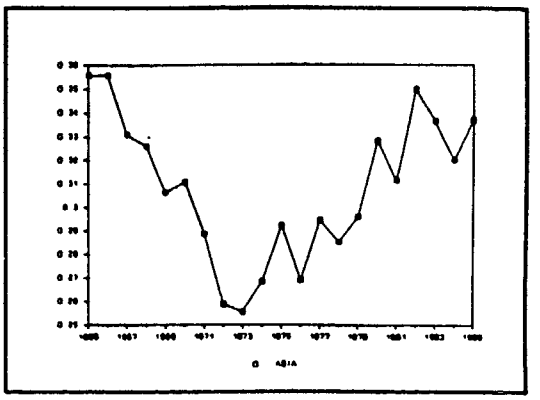


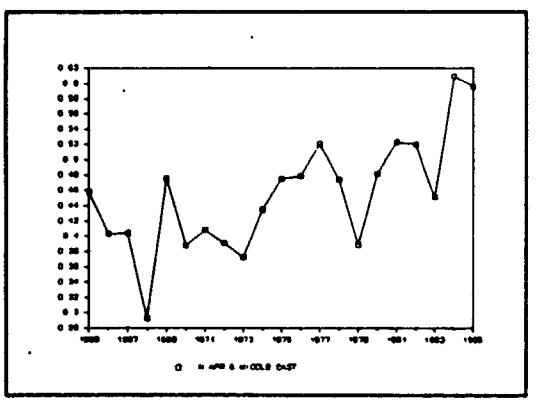


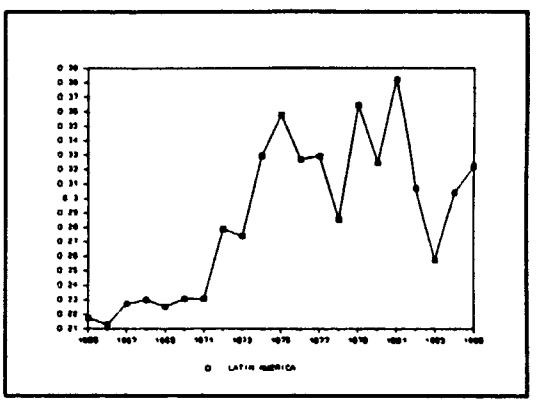


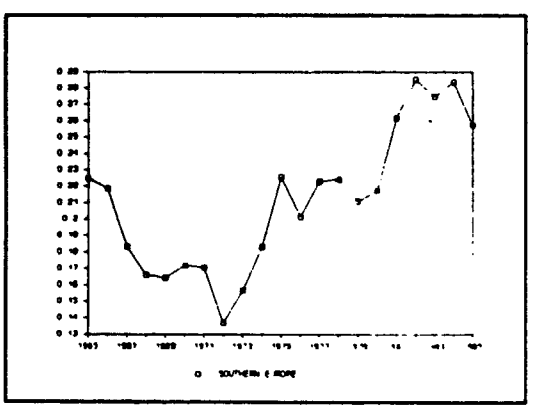
B. MANUFACTURES (b)

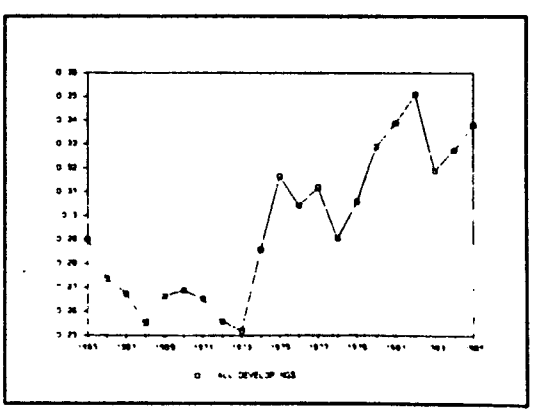












Source: Trade Matrix Software and Data Base, UN, DIESA.

Notes: (a) See table AII.1 in the Appendix for the data and definition of geographical regions.
(b) Manufactures are defined as SITC 5 to 9.

Table 1 reports the results of the trend analysis for the whole period 1965 to 1985 and its two sub-periods, 1965-1973 and 1974-1985. The average annual changes in the export share reported in the Table are computed from the estimated coefficients of the trend regressions. Whether there were statistically significant changes in the trends between the two sub-periods were determined by applying the Chow test.

When all goods were considered, Southern Europe's and Asia's export shares to the South declined on the average by, respectively, 1.5 and 2.2 percent annually from 1965 to 1973. During the 1974-1985 period these shares registered an annual increase of 3.7 and 2.5 percent, respectively. In manufacturing, the annual decline in these shares for the first sub-period was 4.8 and 4.2 percent for the two regions, respectively, and the following annual increases were 3.5 and 2.1 percent.

In North Africa and the Middle East, and Latin America, there was an increase in the share of their total exports to the South during the whole period from 1965 to 1985, without a statistically significant change in this trend. The annual average increase of this share was respectively, 4.5 and 2.0 percent for the two regions. For North Africa and the Middle East this was also true in manufacturing: an annual average of 1.8 percent increase in this share for the whole period.

Developments in the share of the South in Latin America's manufactured exports were the reverse of what was observed in the case of Southern Europe and Asia. In the first sub-period under consideration, this share increased at an annual average rate of 2.9 percent. During the 1974-1985 sub-period there was a slight decline in this share of an annual average of 1 percent.

Table 1: TREND ANALYSIS OF THE SHARE OF DEVELOPING COUNTRIES' EXPORTS GOING TO DEVELOPING COUNTRIES; BY EXPORTING REGIONS, 1965-1985

(a,b,c and d denote, respectively, 10, 5, 2.5 and 1 percent significance level)

Exporting region	Average annual change in the share, %			Change in trend between sub-periods
	1965-1985	1965-1973	1974-1985	
		A. ALL GOODS		
Sub-Saharan Africa	1.1[b]	5.5[d]	No trend	Yes[b]
North Africa & Middle East	4.5[d]	4.0[d]	5.7[d]	No[a]
Southern Europe	3.5[d]	-1.5[b]	3.7[d]	Yes[d]
Asia	0.6[b]	-2.2[d]	2.5[d]	Yes[d]
Latin America	2.0[d]	1.1[b]	1.1[a]	No[a]
All Developing	2.3[d]	0.5[b]	3.7[d]	Yes[d]
		B. MANUFACTURES		
Sub-Saharan Africa	3.3[d]	6.9[d]	2.3[a]	No[a]
North Africa & Middle East	1.8[d]	No trend	2.0[c]	No[a]
Southern Europe	2.3[d]	-4.8[d]	3.5[d]	Yes[d]
Asia	No trend	-4.2[d]	2.1[d]	Yes[d]
Latin America	2.2[d]	2.9[d]	-1.0	Yes[d]
All Developing	1.4[d]	-1.2[d]	1.3[d]	Yes[d]

Source: Summary of estimation results reported in Table AII.3 based on data given in Table AII.1 of the Appendix obtained from Trade Matrix Software and Data Base, UN, DIESA.

Note: OLSQ estimates for $\log y = \log a + t \log b$ derived from the expression $y = ab^t$ where y stands for export share and t for time. Average annual change is computed from the estimated coefficient for t, i.e., log b, where $b = (1+r)$, r being the compound rate of growth. Chow test was applied to determine whether there was a statistically significant change in the trend between the two sub-periods. Manufactures are defined as SITC 5 to 9.

In the case of Sub-Saharan Africa, there was a pronounced increase in its share of total exports to the South during the initial sub-period followed by wide fluctuations in the second sub-period. This share for the manufactures had, on the whole a positive trend (3.3 percent, annually).

The findings above for the geographical regions can be summarized as the following: (i) The characteristic trend in the share of exports destined to the South - first a decline up to early 1970s, followed by an increase - held only for Southern Europe and Asia. (ii) For these two regions the pattern is even more distinct for manufactures. (iii) The case of Latin America in manufactures was the reverse. (iv) In the other regions, generally there was an upward trend in the share of exports to the South in both total exports and manufactures. (v) Overall, the upward trend during the 1974-1985 period was the predominant development.

II.2.(ii) Selected Exporters of Manufactures

The analysis of the trend in the share of South's exports going to the South is extended by considering selected developing countries individually. As it was observed that there was a more characteristic pattern in the manufactures, analysis is confined to this trade and the country sample is limited to developing countries with a substantial export of manufactures.

Table 2 gives the share of exports to the South in total manufactured exports (SITC 5 to 9) of 19 developing countries -- NIEs included -- for 1965, 1973 and 1985. A graphical representation for the whole period and the yearly figures are provided in the Appendix. 1/ The unweighted average for the 19 countries' exports of manufactures going to the South declined from 31 percent

---

1/ Appendix Figure AII.1 and Table AII.2.

Table 2: SHARE OF SELECTED DEVELOPING COUNTRIES' MANUFACTURED EXPORTS /a GOING TO DEVELOPING COUNTRIES: 1965, 1973 and 1985

(percent)

Exporting country	1965	1973	1985
Romania	19	14	26
Tunisia	35	25	18
Turkey	6	22	40
Yugoslavia	26	17	18
China /b	59	55	61
India	30	25	22
Pakistan	53	44	32
Hong Kong /b	20	15	33
Korea, Rep. of	20	12	28
Singapore /b	81	46	46
Taiwan	47	16	23
Indonesia /b	15	29	42
Malaysia /b	24	35	40
Philippines	6	21	17
Thailand	39	27	36
Argentina	32	56	51
Brazil	43	33	41
Chile	10	21	37
Mexico	19	16	3
Unweighted average of the above	31	28	32

Source: Table AII.2 of the Appendix obtained from Trade Matrix Software and Data Base, UN, DIESA.

Notes:

/a Manufactures are defined as SITC 5 to 9.

/b It should be noted that the high ratio of Chinese exports to the South is partially due to shipments to Hong Kong for re-export. In turn, increases in the share of exports to the South by Hong Kong in the second period include increased re-exports to China. Re-exports also account for an important part of Singapore's exports to the South. Consequently, the same applies to Indonesia and Malaysia that export through Singapore.

in 1965 to 28 percent in 1973, and in 1985 this share was 32 percent, slightly above its value in 1965. An interesting phenomenon was the narrowing of the variation in this share among the countries under consideration. 1/ With the exception of five countries - Argentina, China 2/, India, Mexico and Yugoslavia - those which initially had a higher (lower) share than the average experienced a decline (increase) in this share over the period 1965 to 1985.

From Table 3 which reports the results of the trend analysis, it can be observed that nine countries had a significant negative trend in their share of manufactured exports going to the South during the initial period 1965 to 1973. Only five countries had a positive trend in this share and there was no significant trend for the remaining five.

The nine countries which have experienced a decline of the South's share in their exports through 1973 include those with a liberal trade regime, namely, Hong Kong, Singapore and Taiwan. However not all the remaining six countries in this group - Brazil, China, Korea, Pakistan, Romania and Yugoslavia - could be considered trade policy reformists at the time. Again, in this the group of nine countries, five of them - Brazil, China, Pakistan, Singapore and Taiwan - initially had their share of exports going to the South above the average.

Among the five countries - Argentina, Chile, Malaysia, Philippines and Turkey - which had a significant positive trend in the share of their manufactured exports to the South through 1973, it was only Argentina which had this share above the average at the initial period.

1/ The standard deviation was 18.9 in 1965, and 13.5 in 1985.

2/ China constitutes no exception when its trade share for any year but 1985 is considered. Furthermore the fact that a considerable portion of China's export expansion reached the industrial world through Hong Kong must lead to the overstatement of the share of its exports to the South.

Table 3: TREND ANALYSIS OF THE SHARE OF SELECTED DEVELOPING COUNTRIES' MANUFACTURED EXPORTS GOING TO DEVELOPING COUNTRIES, 1965-1985

(a,b,c and d denote, respectively, 10, 5, 2.5 and 1 percent significance level)

Exporting country	Average annual change in the share, %			Change in trend between sub-periods
	1965-1985	1965-1973	1974-1985	
Romania	2.9[d]	-3.1[b]	2.8[d]	Yes[d]
Tunisia	-2.2[c]	No trend	No trend	No[a]
Turkey	9.1[d]	19.7[d]	9.3[d]	Yes[a]
Yugoslavia	No trend	-7.0[d]	No trend	Yes[d]
China	-0.4[c]	-0.9[a]	0.5[a]	Yes[b]
India	-1.1[b]	No trend	-4.4[d]	Yes[c]
Pakistan	-0.7[a]	-3.1[b]	No trend	No[a]
Hong Kong	2.3[d]	-3.7[d]	5.9[d]	Yes[d]
Korea, Rep. of	4.6[d]	-5.0[c]	6.0[d]	Yes[d]
Singapore	-2.9[d]	-6.9[d]	No trend	Yes[d]
Taiwan	-2.7[c]	-13.2[d]	No trend	Yes[d]
Indonesia	3.9[d]	No trend	4.5[d]	No[a]
Malaysia	0.6	4.7[d]	1.8[b]	Yes[d]
Philippines	5.0[d]	19.5[d]	2.9[c]	Yes[d]
Thailand	3.0[c]	No trend	3.4[d]	No[a]
Argentina	0.9[a]	7.1[d]	-2.3[d]	Yes[d]
Brazil	0.9[c]	-2.5[b]	1.5[a]	Yes[b]
Chile	8.1[d]	11.4[d]	No trend	Yes[d]
Mexico	-6.0[d]	No trend	-15.6[d]	Yes[d]

Source: Summary of estimation results reported in Table AII.4 based on data given in Table AII.2 of the Appendix obtained from Trade Matrix Software and Data Base, UN, DIESA.

Note: OLSQ estimates for $\log y = \log a + t \log b$ derived from the expression $y = ab^t$ where y stands for export share and t for time. Average annual change is computed from the estimated coefficient for t, i.e., log b, where $b = (1+r)$, r being the compound rate of growth. Chow test was applied to determine whether there was a statistically significant change in the trend between the two sub-periods. Manufactures are defined as SITC 5 to 9.

During the second sub-period, 1974 to 1985, ten countries had a positive trend in the share of their manufactured exports going to the South. Three countries had a decline, and for the remaining six countries there was no significant trend. The ten countries with a positive trend included all but two (Singapore and Taiwan) South East Asian countries in the sample (i.e., Hong Kong, Korea, Indonesia, Malaysia the Philippines and Thailand), plus Brazil, China, Romania and Turkey. With the certain exception of Romania, most of these countries had export-oriented trade regimes or adopted such strategies by the 1980s.

The three countries which had a declining trend in their share of exports going to the South were Argentina, India and Mexico. The first two certainly were not examples of liberal or outward-oriented trade regimes. In the case of Mexico, the expansion of "maquiladora" industries along its border with the USA is a major factor influencing the direction of its exports.

The individual country experiences can be summarized as follows: (i) A decline in the share of manufactured exports going to the South was the characteristic trend during the period through 1973 for those countries with relatively more liberal trade regimes. (ii) During the 1974-1985 period, for most countries there was an increase in this share. (iii) Over the longer period, from 1965 to 1985, the predominant development was an increase in the proportion of South-South trade and a narrowing down in the variation of this share across countries.

II.2.(iii) Do Previous Stylization Hold?

Concerning the overall picture and the experience of geographical regions, we found that the previous stylization - a decline in the proportion

of exports to the South throughout the early 1970s and an increasing trend then on - held only for Southern Europe and Asia. This pattern was more pronounced in manufactures. Otherwise the predominant development was an increase in the share of South's export to South over the whole period.

Most importantly, we found no monotonous relationship, consistent over time, between countries' trade policy orientation and the trends in the proportion of their trade with the South. While in the earlier period countries with relatively liberal trade regimes had a more marked decline in the share of their trade with the South, in the later period it appeared that openness went hand in hand with more trade with the South. An interesting finding over the longer period was a movement towards "normalization" in the proportion of exports to the South. Latin America - which had a relatively high proportion of its trade with the South - was the only region which experienced some decline in this share during the more recent period.

Part of the explanation why our revised and updated results to some extent contradict previous findings lies in the definition of the South and, in the case of manufactures, differences in product coverage. We included OPEC as part of the South, whereas some previous studies kept it apart. 1/ Nevertheless, our results are robust as to the consistency of the data in

---

1/ As pointed out by Donges (1987) in his comment to Havrylyshyn (1985), the exclusion of OPEC from the analysis of the trends in South-South trade cannot be easily justified. "As to the incidence of OPEC countries as markets of destination, it should be borne in mind that they are probably not much more different from other developing countries than the newly industrializing countries are, although the reasons for heterogeneity differ. Therefore, there is not much use in excluding OPEC from South-South trade. The interesting point, which deserves more emphasis, is that not all, but only a few, developing countries, mainly from East Asia, proved able to seize the opportunities offered by the rapidly growing OPEC markets. To put it in another way, supply rather than demand factors have determined the expansion of South-South trade to a considerable extent" (pp. 42-43).

terms of country and product definition. 1/ Furthermore, we analyzed the trends rather than making inferences based on discrete observations.

II.2.(iv) Relative Growth Rates of the North and the South Revisited

The longer term developments in the destination of the South's exports - as well as cyclical fluctuations in this share 2/ - were closely related to the growth rate differential between the South and the North. As for the longer term, the essence of the argument is Arthur Lewis' (1980) "The Slowing Down of the Engine of Growth". During the 1963-1973 period developed countries had an annual average growth rate of 4.7 percent while that for developing countries was 6.4 percent; 36 percent higher. 3/ In the following decade, 1973-1983, the respective figures were 2.4 and 4.8 percent, i.e. the average annual growth rate of the developing countries was double that for the developed countries.

Figure 2 depicts the cyclical movements in the destination of the South's exports and the growth rate differential between the South and the North (South minus North). While the destination of total exports appears to be insensitive to yearly fluctuations in the growth gap, the turning points in

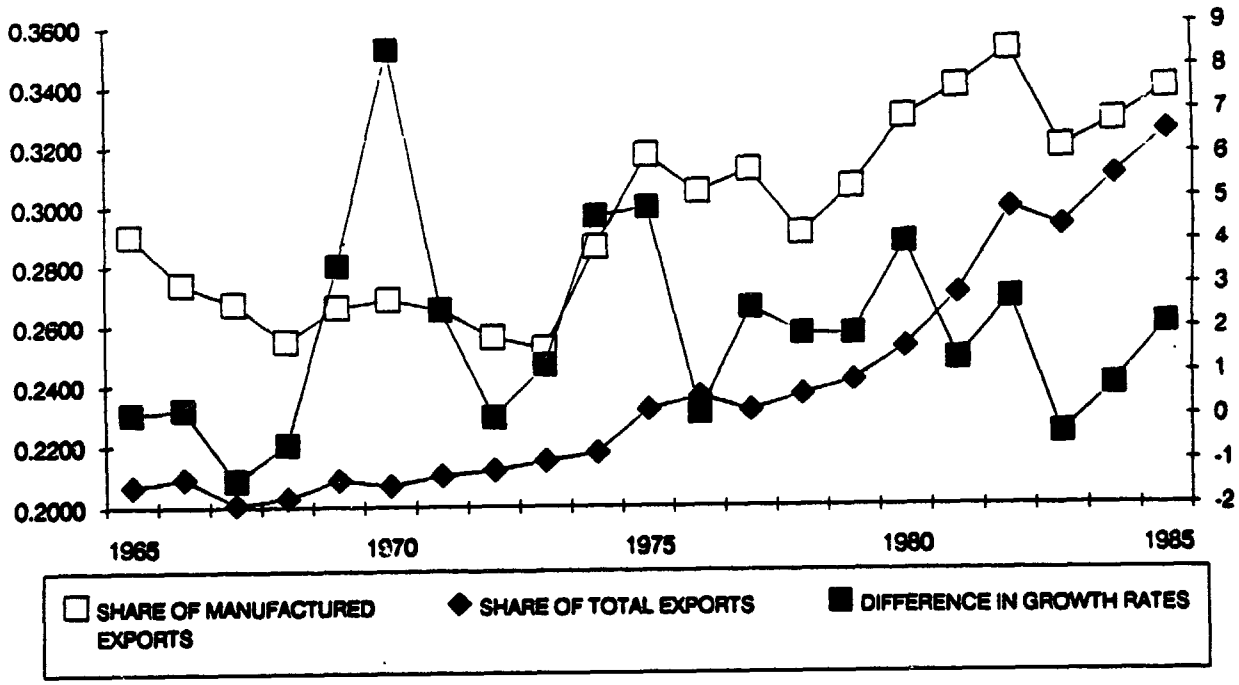
---

1/ The high level of aggregation of the basic data we use is also an advantage.

2/ The cyclical fluctuations in this share were observed by Havrylyshyn (1985). "As the industrial countries entered their first recession in 1975, the share of South-South trade increased, but then fell again with the recovery in 1976-1977. As the recovery showed signs of weakening in 1978 and eventually bespoke itself clearly as a recession, the share again went up. This is not to say that the increase in this share since 1973 is temporary and will be lost in the eighties as industrial countries move out of the present recession" (p. 268).

3/ Growth rates are based on real GDP in 1980 market values. ANDREX Data Base, the World Bank; OLSQ estimates for period averages.

Figure 2: SHARE OF DEVELOPING COUNTRIES' EXPORTS GOING TO DEVELOPING COUNTRIES AND THE GDP GROWTH RATE DIFFERENTIAL BETWEEN NORTH AND SOUTH (SOUTH MINUS NORTH); 1965-1985



Sources: Trade: Trade Matrix Software and Data Base, UN, DIESA;
GDP: ANDREX Data Base, the World Bank.

Note: See table AII.1 in the Appendix for the data.

the share of manufactured exports going to the South closely follow this pattern. These observations are confirmed by the results of regression analysis. When the growth differential was included in the trend equations, it had a positive impact significant in the case of manufactured exports and especially so for the Asian region. 1/

Since the 1983 recovery in industrial countries, the North-South growth gap has reduced considerably. The annual average rates of growth for the 1983-1987 period were, respectively, 3.2 and 5 percent for the North and the South. This reduction in the growth gap slowed down the increase in the share of exports going to the South. However for the period through 1985 for which consistent trade data are available, only in 1983 this share for manufactures exhibited a decline for most of the developing countries.

Preliminary data for the period since 1985 show that, despite the recent expansion in the OECD area and stagnation in parts of the developing world, there was no notable decline in the proportion of South's exports to the South. On the contrary, in the case of South East Asia, there was an increase in this share. What is probably more notable is the recent South American experience. Despite import contraction and ambitious export

---

1/	1965-1973	1974-1985
Asia	$-0.96 - 0.046T + 0.007D$ $\bar{R}^2 = 0.96$ (14.58) (2.58)	$-1.62 + 0.026T + 0.018D$ $\bar{R}^2 = 0.81$ (6.84) (2.27)
All developing	$-1.26 - 0.014T + 0.005D$ $\bar{R}^2 = 0.61$ (3.81) (1.46)	$-1.41 + 0.015T + 0.012D$ $\bar{R}^2 = 0.52$ (3.67) (1.33)

T and D denote, respectively, the time trend and the growth rate differential. The dependent variable of the semi-logarithmic expression is the logarithm of export share in manufacturers. In parentheses t values are given. For comparison, see Table AII.3 in the Appendix.

promotion efforts by some of them - mainly targeting industrial countries - to cope with the debt crisis (see Laird and Nogues '1988)), the intra-regional share of their exports picked up in 1986 and was stable throughout 1988. 1/

III. SOUTH'S STRUCTURE OF PROTECTION AND SOUTH-SOUTH TRADE EXPANSION WITH NON-DISCRIMINATORY LIBERALIZATION

III.1. The Basis for South-South Trade Expansion through Non-Discriminatory Liberalization: Theoretical Underpinnings

The basis of trade can be loosely classified into two sources. One is comparative advantage arising from differences among countries' tastes, technologies and resource endowments, along the lines of Ricardian or the Heckscher-Ohlin frameworks. Comparative advantage applies at the level of industries, determining the pattern and volume of inter-industry trade. The other major source of trade besides comparative advantage is economies of scale which leads to specialization in individual products within each industry and often manifests itself as intra-industry trade. 2/ Yet, scale economies can apply to product lines so large - especially in relation to the size of markets in most developing countries - that their exploitation may require inter-industry trade (Krugman (1986)). This additional specialization due to scale economies, whether it takes the form of inter- or intra-industry

---

1/ Intra-LAIA (Latin American Integration Association) exports declined from 12 percent in 1982 to 9 percent in 1983-1985. Since 1986 this was up again around 11 percent.

2/ The original Linder (1961 and 1967) hypothesis - demand patterns among countries at similarly high income levels being the basis of non-comparative advantage trade - in later literature was reduced to the act of "product differentiation" and the existence of returns to scale in differentiated products (see, e.g., Krugman (1980)).

trade, includes an arbitrary or historical element; i.e., on an ex-ante basis where a specific good would be produced iss indeterminate (see, e.g., Helpman and Krugman (1985)).

To explore the direction of trade under liberalization, as a first approximation let South and North be described as two clusters of countries similar among themselves in terms of their supply and demand characteristics. The most rudimentary exercise would be to look into what would happen in a three country framework when two Southern countries move from autarky to free trade in the existence of a barrier free North. Loosely formulated, on the basis of dissimilarities, Ricardian and Heckscher-Ohlin type of inter-industry trade would expand more between the Southern countries and the North compared to the expansion within the South. On the other hand, within the South, non-comparative advantage trade among similars, taking the form of inter- or intra-industry trade would be greater.

In this framework, the determinants of the relative level of South-South trade are reduced to a comparison of the potential for comparative advantage versus non-comparative advantage trade. Although it is an empirical question, in the existence of major disparities in supply and demand factors between the Southern countries and the North, a move from autarky to free trade would likely result in the domination of the former type of trade over the latter. However, the outcome could be different (i) if the starting point were not autarky but protectionism with a non-uniform structure and/or (ii) if the liberalization were not a uniform and complete elimination of trade barriers. A seemingly paradoxical yet realistic case is when the Southern countries have relatively higher tariffs and other restrictive barriers on goods in which they are competitive. As such a structure of protection can be prohibitive for non-comparative advantage intra-South trade

based on economies of scale, it is conceivable that likely liberalization scenarios could significantly augment the share of South-South trade.

As differences in supply and demand characteristics between the NIEs, for instance, and the low income developing countries are in certain cases greater than that between the former and the North, comparative advantage trade in Ricardian and Heckscher-Ohlin goods in South-South trade could be substantial. The "chain of comparative advantage" conceptualized by Krueger (1977) is a useful framework to explore the consequences of liberalization. Accordingly, under free trade, countries specialize in sub-segments of the spectrum of goods. With some protection of all goods, a country somewhere in the middle of the chain of comparative advantage, for instance a NIE, would have domestic production of goods extending beyond both the upper (North) and lower (South) limits of its free trade specialization segment. 1/ In this framework, while an across the board reduction in protection would expand imports from both the South and the North, for instance a more than proportionate reduction in highly protected goods can have a bias depending on the structure of protection. If the initial protection on domestic production competing with South's exports is relatively higher, the resulting trade expansion would be in favor of imports from South. It is also obvious from this framework where countries specialize along the spectrum of goods, selectivity in terms of goods in (non-discriminatory) liberalization is as well selectivity in terms of their origin.

1/ The further away a good lies from this in both directions, the higher is the level of protection required for domestic production. This is an indirect formulation of the factor proportions hypothesis which can be tested using effective protection rates. Due to imperfect competition arising from the smallness of the domestic market and scale requirements, however, the hypothesis has to be modified (see Erzan (1983)).

Comparative advantage trade is a well understood phenomenon especially in the North-South context which is directly applicable to intra-South trade - to the extent that relative factor endowments among the developing countries do differ. On the other hand, non-comparative advantage trade is a much less explored area, especially in the context of South-South trade. As the level of intra-industry trade - often identified with non-comparative advantage trade - appeared to be closely associated with the stage of development 1/ (see, e.g., Havrylyshyn and Civan (1983)), the topic was considered mainly in the domain of intra-North trade. 2/ It is only recently that attention is being paid to the possibility that not only in manufactures, but even in primary goods, returns to scale could be an important determinant in the location of production and trade, 3/ and that due to the often excessively small size of their markets, scale might be a particularly prominent factor in both inter- and intra-industry trade of developing countries (Krugman (1986)).

Still, the emphasis is on the North-South axis under the presumption that for products in which the South has a comparative advantage, returns to scale can be exploited by reaching the Northern markets. What if some of these goods are only in demand in the Southern markets? This is considered as one of the explanations of the increasingly important trade in engineering

---

1/ The argument is that, in final goods, demand for differentiated products - giving rise to economies of scale - requires high income levels and that in intermediate goods, to exploit complementarities in production, a diversified industrial capacity is necessary.

2/ Some studies, nevertheless, looked into the intra-industry trade of developing countries; e.g., Balassa (1979) Erzan and Laird (1984) and Havrylyshyn and Civan (1985).

3/ The typical example provided for primary goods relates to returns to scale in transportation facilities.

goods among developing countries. Presumably first lower quality varieties of products find markets in developing countries before achieving competitiveness in higher quality, saleable in industrialized countries. 1/ If this phenomenon - which should have generality beyond the engineering goods - is taking place in the face of much higher levels of protection in developing countries (compared to the industrialized countries), its potential for the expansion of South-South trade is obvious.

III.2. The Bias in the Structure of Developing Countries' Protection against South-South Trade

Does the structure of developing countries' protection discriminate against products in which they have, as a group, a revealed comparative advantage? We address this question by analyzing the level of import duties and the frequency of non-tariff measures (NTMs) of individual countries with respect to (i) the revealed comparative advantage index of developing countries 2/ taken as a whole and (ii) the share of imports in each country originating from developing countries.

Following the Balassa (1965) tradition, non-manufactures are excluded from the analysis since due to major distortions in the developed and developing countries, the pattern of this trade has little relation to international competitiveness. Manufactures are considered in 34 product groups at the 2-digit level of the SITC (rev. 2) 5 to 8 less 68.

1/ Presumably the "softer" markets in other developing countries serve as the second "platform" after the home market (see, e.g., Alavi and Alikhani (1985) and Havrylyshyn and Alikhani (1989)).

2/ The definition of developing countries used here is consistent with that of the previous sections and is given in notes to the Appendix Table AII.1.

Three measures of protection are employed (i) the rate of total import duties (i.e., customs duties and/or fiscal duties, i.e., tariffs, plus other border changes on imports, i.e., para-tariffs), (ii) the frequency of quantitative restrictions (i.e., restrictive licensing, quotas and prohibition) that fall into a product group, and (iii) the frequency of (any) NTMs in general. These measures do not take into consideration the regional trade preferences. Details of the data including the methodology in taking sectoral averages for import duties and computing the frequency counts of NTMs are given in Appendix I.

The analysis is applied to 53 developing countries representing all geographical regions and levels of industrialization for which consistent data were available. 1/

III.2.(i) Revealed Comparative Advantage of the South

The revealed comparative advantage index reflecting the world export share of all developing countries taken together in the 34 manufactured product groups was calculated based on 1983 trade flows (see Appendix III). Then the correlation between this index - which ranks the manufactures according to the competitiveness of the South as an actual (and prospective) supplier - and each of the three proxies for the sectoral levels of protection in the 53 developing countries was computed. A positive correlation implies a bias against exports of developing countries, disregarding the particular demand and domestic supply conditions of the importer.

1/ In addition to lack of data and obvious inconsistencies in data, around 15 developing countries were excluded from the analysis due to their extremely small economic size.

Table 4 gives the correlation results where Spearman rank order correlation coefficients are reported only when significant at the 10 percent level. It is observed that in 47 of the 53 country sample the level of import duties had a positive correlation with the comparative advantage ranking of the product groups. The coefficients had a value in the range of 0.29 to 0.66, most of them significant at the one percent level. There was no case of a negative correlation. The six countries which proved to have no significant correlation were Bolivia, India, Kuwait, Libya, Oman and Qatar; only one, India, had a significant manufacturing sector.

The results concerning quantitative restrictions and NTMs in general were significant only for roughly half of the country sample. Whenever there was a significant correlation, however, its sign was nearly always positive. The exceptions were in the case of Algeria, Costa Rica, Kuwait and the Philippines.

It was notable that for most of the Sub-Saharan African and Latin American countries under consideration, there was a significant positive correlation between the frequency of NTMs and the overall comparative advantage index of the developing countries. In South and South East Asia, however, only Bangladesh, Indonesia and Pakistan had such a correlation.

It should be noted that the proxy used for NTM protection is indeed a very imperfect measure (see Appendix I). Given that the proxy only measures the existence - not the actual use or the restrictiveness - of the NTMs, the results are surprisingly strong. Consequently, it cannot be ruled out that in the more advanced and sophisticated Asian countries the tested relation does not hold due to more flexible use of the existing NTMs.

Table 4: RANK CORRELATION BETWEEN THE REVEALED COMPARATIVE ADVANTAGE INDEX /a OF DEVELOPING COUNTRIES AS A WHOLE IN MANUFACTURED PRODUCT GROUPS /b AND THE LEVEL OF IMPORT DUTIES, FREQUENCY OF QUANTITATIVE RESTRICTIONS AND ALL NON-TARIFF MEASURES (NTMs) IN INDIVIDUAL DEVELOPING COUNTRIES

(Spearman rank order correlation coefficient reported only if significant at the 10 percent level, * and ** denote significance at the 5 percent and 1 percent level, respectively)

	Average/c Import Duties	Frequency of /d Quantitative Restrictions	Frequency of /e (any) NTMs
Sub-Saharan Africa			
Cameroon	0.51**		
Central African Rep.	0.59**		
Congo	0.60**		
Cote d'Ivoire	0.49**		
Ghana	0.33	0.56**	0.57**
Kenya	0.50**	0.64**	0.64**
Nigeria	0.53**	0.46**	0.46**
Senegal	0.64**		0.33
Sudan	0.56**	0.49**	0.49**
Tanzania	0.50**		
Zaire	0.65**		0.46**
North Africa and Middle East			
Algeria	0.64**	-0.30	
Bahrain	0.29		
Egypt	0.64**	0.48**	0.55**
Iraq	0.61**	0.36*	0.36*
Jordan	0.55**		
Kuwait		-0.32	-0.32
Libya	0.35*		
Morocco	0.59**		0.33
Oman			
Qatar			
Saudi Arabia	0.49**		
Syria	0.69**		
Tunisia	0.66**	0.57**	0.52**
United Arab Emirates	0.35*		
Southern Europe			
Romania	0.39*		
Yugoslavia	0.38*		
South Asia			
Bangladesh	0.65**	0.60**	0.60**
India			
Pakistan	0.57**		0.32
Sri Lanka	0.56**		

	Average/c Import Duties	Frequency of /d Quantitative Restrictions	Frequency of /e (any) NTMs
Cont'd			
South East Asia			
Indonesia	0.46**	0.34*	0.30
Korea (Rep. of)	0.53**		
Malaysia	0.50**		
Philippines	0.63**	-0.34*	
Singapore	0.35*		
Thailand	0.45**		
Latin America			
Argentina	0.35*	0.32	0.33
Bolivia		0.32	0.42*
Brazil	0.49**	0.37*	0.35*
Chile	0.47**		
Colombia	0.52**	0.48**	0.45**
Costa Rica	0.65**	-0.47**	-0.47**
Ecuador	0.43*	0.59**	0.74**
Guatemala	0.61**		
Guyana	0.58**		
Jamaica	0.55**		
Mexico	0.57**		0.43*
Paraguay	0.60**		
Peru	0.58**	0.53**	0.53**
Trinidad and Tobago	0.57**	0.37*	0.37*
Uruguay	0.49**		
Venezuela	0.55**	0.48**	0.55**

Sources: Trade: UNSO COMTRADE Data Base; import duties and NTMs: UNCTAD Data Base on Trade Control Measures based on official national sources.

Notes:

/a Index of revealed comparative advantage: the share of developing countries' exports in world exports for each product group divided by their share in total world exports of manufactures, 1983 (see Appendix III).

/b Product groups: SITC rev. 2, 5 to 8 less 68, a total of 34 2-digit manufactured product groups.

/c Average import duties: arithmetic average of tariffs and other ad valorem import changes in each product group. See Appendix I for details.

/d Frequency of quantitative restrictions: percentage of tariff-lines in each product group subject to restrictive licensing, quotas or prohibition (see Appendix I), without double counting.

/e Frequency of any NTM: percentage of tariff-lines in each product group subject to any NTM, i.e., quantitative restrictions, money and finance measures, control of price level or single channel for imports (see Appendix I), without double counting.

III.2.(ii) South's Share in Imports

The analysis of the structure of developing countries' protection with respect to goods in which the South has a comparative advantage in general is extended by focusing on the share of imports from this origin in individual developing countries. In the absence of (positive or negative) discrimination by origin of imports, a relatively larger share of imports in a certain product group coming from developing countries denotes a stronger comparative advantage for this group of countries vis-a-vis the importer. If these goods happen to face relatively higher levels of trade barriers, it can be concluded that the structure of protection has a bias against the South.

The correlation between the share of imports from the South with the three measures of protection described above is computed for the developing countries under consideration. 1/ The results are given in Table 5 where the Pearson correlation coefficients are reported only when significant at the 10 percent level. Concerning import duties, half of the countries in the sample had a significant correlation and with two exceptions, Morocco and Yugoslavia, all were positive. The range of the coefficient was 0.30 to 0.73, most significant at the one percent level.

Most of the countries which had a significant correlation between the South's share in their imports and import duties facing them also had a significant and positive correlation between the former and the frequency of quantitative restrictions and NTMs in general. There was a negative correlation only in the case of Algeria, India and Tanzania.

1/ One country, Romania was excluded from the 53 country sample as there were no-trade data at the SITC 2-digit level.

Table 5: CORRELATION BETWEEN THE SHARE OF IMPORTS /a FROM DEVELOPING COUNTRIES IN MANUFACTURED PRODUCT GROUPS /b AND THE LEVEL OF IMPORT DUTIES, FREQUENCY OF QUANTITATIVE RESTRICTIONS AND ALL NON-TARIFF MEASURES (NTMs) IN INDIVIDUAL DEVELOPING COUNTRIES

(Correlation coefficient reported only if significant at the 10 percent level, * and ** denote significance at the 5 percent and 1 percent level, respectively)

	Average/c Import Duties	Frequency of /d Quantitative Restrictions	Frequency of /e (any) NTMs
Sub-Saharan Africa			
Cameroon			
Central African Rep.	0.51**		0.36*
Congo	0.39*		0.38*
Cote d'Ivoire	0.44**		
Ghana	0.43*		
Kenya		0.34*	0.34*
Nigeria	0.49**	0.52**	0.52**
Senegal	0.36*		
Sudan		0.37*	0.37*
Tanzania			-0.55**
Zaire	0.61**		0.34*
North Africa and Middle East			
Algeria	0.39*	-0.34*	0.32
Bahrain			
Egypt	0.36*		
Iraq	0.31		
Jordan			
Kuwait		0.39*	0.38*
Libya			
Morocco	-0.30		
Oman			
Qatar			
Saudi Arabia			
Syria			0.35*
Tunisia		0.29	
United Arab Emirates			
Southern Europe			
Yugoslavia	-0.44**	0.29	0.29
South Asia			
Bangladesh	0.51**	0.35*	0.35*
India		-0.38*	-0.43*
Pakistan			
Sri Lanka	0.58**		

	Average/c Import Duties	Frequency of /d Quantitative Restrictions	Frequency of /e (any) NTMs
Cont'd			
South East Asia			
Indonesia	0.45**	0.41*	0.33
Korea (Rep. of)			
Malaysia	0.52**		
Philippines	0.46**		
Singapore			
Thailand			
Latin America			
Argentina		0.66**	0.65**
Bolivia			
Brazil			
Chile	0.55**		0.61**
Colombia			
Costa Rica	0.48**		
Ecuador			
Guatemala	0.73**		
Guyana			
Jamaica	0.43*		
Mexico			
Paraguay	0.43*	0.37*	0.37*
Peru	0.53**	0.42*	0.42*
Trinidad and Tobago	0.65**	0.79**	0.67**
Uruguay	0.47**	0.33	0.40*
Venezuela	0.53**	0.36*	

Sources: Trade: UNSO COMTRADE Data Base; import duties and NTMs: UNCTAD Data Base on Trade Control Measures based on official national sources.

Notes:

/a Import shares: imports from developing countries as a percentage of the country's imports from all sources, 1983.

/b Product groups: SITC rev. 2, 5 to 8 less 68, a total of 34 2-digit manufactured product groups.

/c Average import duties: arithmetic average of tariffs and other ad valorem import changes in each product group. See Appendix I for details.

/d Frequency of quantitative restrictions: percentage of tariff-lines in each product group subject to restrictive licensing, quotas or prohibition (see Appendix I), without double counting.

/e Frequency of any NTM: percentage of tariff-lines in each product group subject to any NTM, i.e., quantitative restrictions, money and finance measures, control of price level or single channel for imports (see Appendix I), without double counting.

It was observed that in most of the Sub-Saharan African countries both customs duties and NTMs appeared to discriminate against imports from the South. In Asia and Latin America this held true for roughly half of the countries under consideration yet not for most of the major trading nations of these regions.

III.2.(iii) Some Inferences

Some inferences can be made concerning the structure of protection in individual countries by comparing the two sets of results above, one obtained by using the revealed comparative advantage index of the South, the other based on the share of countries' imports from this origin.

For the major exporters of manufactures in Asia and Latin America, the finding that the structure of protection had a significant positive correlation with the revealed comparative advantage index of the South - but not with their import shares originating from the South - points at two factors. One is the fact that these countries' exports have a predominant weight in the overall index of revealed comparative advantage of the South. Hence the high correlation between this index and their trade barriers can be interpreted as the protection of competitive industries - which is primarily an impediment to intra-industry trade. The second factor is regional trade preferences, especially in Latin America, which are not incorporated in the proxies of protection employed here. Preferential treatment in especially the highly protected goods would induce relatively higher import shares for the South.

The significance of the correlation results for most of the Sub-Saharan African countries in terms of both the revealed comparative advantage index of the South and the import shares is noteworthy. It underlines a

distinctly higher level of protection on their existing and "prospective" industries. Reduction of this bias by non-discriminatory liberalization could increase the proportion of their Southern trade.

IV. SUMMARY AND CONCLUDING REMARKS

For most developing countries, the proportion of their exports - both total and manufactures - going to other developing countries has been steadily increasing since the early 1970s. In the light of the previous record, such development used to be associated with inward-looking trade strategies and regional trading arrangements. Up to the early 1970s, most of the relatively outward-oriented developing countries experienced a decline in the share of their trade with other developing countries, particularly in manufactures. Since the early 1970s, however, outward-orientation often went hand in hand with more South-South trade.

The "slowing down of the engine of growth" was a major factor affecting the direction of developing countries' trade. However, the resumption of growth in the industrial countries did not alter the increasing trend in South-South trade - a phenomenon which can be interpreted as one of the signals of a new international economic environment.

It was shown that the structure of tariff and non-tariff protection in most developing countries discriminates against products which could be competitively supplied from other developing countries. Hence, an across the board non-discriminatory liberalization in developing countries would generally be in favor of South-South trade, and more so if the liberalization had an emphasis on sectors with relatively higher levels of protection.

The paper did not analyze the possible impact of the erosion of regional trade preferences resulting from multilateral liberalization. However, this would not change the general conclusion of the paper to the extent that the preferences tend to exclude products which receive higher levels of protection - as it is often the case.

A useful starting point for further research to study more thoroughly the impact of general liberalization on South-South trade would be a systematic investigation of the direction of trade over time in individual developing countries which have gone through liberalization episodes. The "phases" in Bhagwati and Krueger (1978), the "indexes" constructed by Michaely, Choksi and Papageorgiou (1989), and the more recent record of trade policy reforms sponsored by the World Bank (Thomas (1989)) provide valuable information on the policy orientation of a relatively large number of developing countries over a period of three decades. However this approach has two weaknesses. The first pertains to the accuracy and relevance of the measures used in these studies to delineate various phases of liberalization. 1/ The second is a more fundamental question. To what extent is the historical record a relevant basis to predict the direction of trade which would result from (non-discriminatory) trade liberalization undertakings in the current setting? Not only today's South accounts for a much bigger share of the

---

1/ The Michaely, Choksi and Papageorgiou (1989) country studies construct rather subjective and country specific indexes of trade liberalization. The more objective measure of outward orientation used by Bhagwati and Krueger (1978) defines a situation where incentives for export activities are as attractive as that for import substitution. However, while this would hold for the economy as a whole and implies an essentially neutral and liberal economic environment, it does not rule out selective industrial support policies. More importantly, it does not rule out relatively high levels of tariff and NTM protection. With two exceptions, nearly all outward looking NIEs maintained an average customs charge (tariffs plus para-tariffs) above 40 percent and roughly half of their tariff items were subject to some NTM (see Erzan et al (1987)).

market but also policy differences and growth differentials among regions and individual countries over the last two to three decades have generated a vastly more diversified South. 1/

An inherent shortcoming of the current study stems from its treatment of the South as an entity - especially concerning the destination of exports. An alternative is constructing groupings for developing countries - both as exporters and importers - depending on their characteristics such as relative factor and natural resource endowments. Studying the trade patterns of such country groups in specific product categories with respect to the structure of protection should give accurate indications of the consequences of possible liberalization scenarios. Simulations using a partial equilibrium trade model such as in Erzan, Laird and Yeats (1988) would be useful in this exercise.

A selective approach covering a small number of countries which have gone through a reorientation in their trade policies is a route which would allow a closer focus. Concentrating on some products and industries, it should be feasible to study the direction of trade and its intra-industry component in conjunction with the extent of actual liberalization or the lack of it. 2/ This selective approach should allow some assessment of the impact

---

1/ A characteristic proof of the increasing diversity among the developing countries is the fact that in raw materials and primary products, the share of South in all NIEs' imports has been secularly increasing (Havrylyshyn and Wolf (1983)).

2/ This should cast light on the apparent puzzle that the level of intra-industry trade among the NIEs is significantly lower than that among developing countries as a whole (Erzan and Laird (1985) and Havrylyshyn and Civan (1985)).

of NTMs and possible discriminatory practices including preferential arrangements concerning the direction of trade.

Finally, the gravitational approach can be exploited by incorporating tariffs and NTMs as well as proxies for comparative advantage in additional to more conventional variables such as distance and market size.

REFERENCES

Alavi, H. and I. Alikhani (1985), "South-South Trade in Machinery and the Emergence of Comparative Advantage" (mimeo), The World Bank and George Washington University, Washington, D.C.

Balassa, B. (1965), "Trade Liberalization and 'Revealed' Comparative Advantage", The Manchester School of Economic and Social Studies, Vol. 33, No. 2, pp. 99-124.

Balassa, B. (1979), "Intra-Industry Trade and the Integration of Developing Countries in the World Economy", in H. Giersch, ed., On the Economics of Intra-Industry Trade, Mohr-Siebeck, Tubingen, pp. 245-270.

Bhagwati, J.N. (1978), Foreign Trade Regimes and Economic Development: Anatomy and Consequences of Exchange Control Regimes, Ballinger Press for National Bureau of Economic Research, Cambridge.

Deardorf, A.V. (1987), "The Directions of Developing Country Trade: Examples of Pure Theory", in O. Havrylyshyn, ed. (1987), pp. 9-21.

DeRosa, D. (1988), "Asian Preferences and the Gains from MFN Tariff Reductions," The World Economy, Vol. 11, No. 3, pp. 377-396.

Donges, J.B. (1987), "Comment" on Havrylyshyn (1985), in Havrylyshyn, ed. (1987), pp.41-43.

Erzan, R. (1983), "Turkey's Comparative Advantage, Production and Trade Patterns in Manufactures: An Application of the Factor Proportions Hypothesis with some Qualifications,' Institute for International Economic Studies, Monograph Series, No. 14, Stockholm.

Erzan, R. and S. Laird (1984), "Intra-Industry Trade of Developing Countries and Some Policy Issues", UNCTAD Discussion Papers, No. 12, Geneva; and Institute for International Economic Studies, Seminar Paper, No. 289, Stockholm.

Erzan, R., S. Laird and A. Yeats (1988), "On the Potential for Expanding South-South Trade through the Extension of Mutual Preferences among Developing Countries", World Development, Vol. 16, No. 12, pp. 1441-1454.

Erzan, R., H. Kuwahara, S. Marchese and R. Vossenaar (1989), "The Profile of Protection in Developing Countries", UNCTAD Review, Vol. 1, No. 1, pp. 29-49.

Erzan, R. and G. Karsenty (1989), "Products Facing High Tariffs in Major Developed Market Economy Countries: An Area of Priority for Developing Countries in the Uruguay Round?", UNCTAD Review, Vol. 1, No. 1, pp. 51-73.

Erzan, R., J. Goto and P. Holmes (1989), "Further Evidence on the Restrictiveness and Other Trade Effects of MFA on Exports of Developing Countries in the 1980s" (mimeo), paper presented at the Stockholm "Workshop on International Textile Trade, The Multi-Fibre Arrangement and the Uruguay Round," 20-21 June, 1989, The World Bank, Washington, D.C.

Finger, J.M. and S. Laird (1987), "Protection in Developed and Developing Countries: An Overview", Journal of World Trade Law, Vol. 21, pp. 9-23.

GATT (1980), The Tokyo Round of Multilateral Trade Negotiations: II Supplementary Report, Geneva.

Goto, J. (1988), "Effects of the Multifiber Arrangement on Developing Countries: A Survey", PPR Working Papers, No. 102, The World Bank, Washington, D.C.

Greenway, D. and C. Milner (1988), "South-South Trade: Theory Evidence and Policy Aspects", Centre for Research in Economic Development and International Trade, Research Paper, No. 1, Nottingham.

Grubel, H.G. and P. Lloyd (1975), Intra-Industry Trade, MacMillan, London.

Havrylyshyn, O. (1985), "The Direction of Developing Country Trade: Empirical Evidence of Differences Between South-South and South-North Trade", Journal of Development Economics, Vol. 19, pp. 255-281; reprinted in O. Havrylyshyn, ed. (1987), pp. 23-43.

Havrylyshyn, O., ed. (1987), Exports of Developing Countries: How Direction Affects Performance, A World Bank Symposium, Washington, D.C.

Havrylyshyn. O. and I. Alikhani (1989), "Changing Comparative Advantage and Trade Among Developing Countries," in J. Black and A. MacBean, eds., Causes of Change in the Structure of International Trade, MacMillan, London, pp. 136-167.

Havrylyshyn, O., and E. Civan (1983), "Intra-Industry Trade and the Stage of Development: A Regression Analysis of Industrial and Developing Countries," in P.K.M. Tharakan, ed., Intra-Industry Trade: Empirical and Methodological Aspects, North-Holland, Amsterdam, pp. 111-140.

Havrylyshyn, O., and E. Civan (1985), "Intra-Industry Trade Among Developing Countries", Journal of Development Economics, Vol. 18, pp. 253-271.

Havrylyshyn, O., and M. Wolf (1983), "Recent Trends in Trade Among Developing Countries", European Economic Review, Vol. 21, pp. 333-362.

Havrylyshyn, O., and M. Wolf (1987), "What Have We Learned About South-South Trade?", in O. Havrylyshyn, ed. (1987), pp. 149-166.

Helpman, E. and P. Krugman (1985), Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition and the International Economy, MIT Press, Cambridge.

Hughes, H. (1980), "Inter-Developing Country Trade and Employment", paper presented at International Economic Asociation, sixth world congress on human resoures, employment and development, Mexico City, 4-9 August.

Khanna, A. (1987), "Market Distortions, Export Performance, and Export Direction: India's Exports of Manufactures in the 1970s", in O. Havrylyshyn, ed. (1987), pp. 47-56.

Krugman, P. (1980), "Scale Economies, Product Differentiation and the Pattern of Trade", American Economic Review, Vol. 70, pp. 950-959.

Krugman, P. (1986), "New Trade Theory and the Less-Developed Countries" (mimeo).

Krueger, A. O. (1977), Growth, Distortions and Patterns of Trade among Many Countries, Princeton Studies in International Finance, No. 40, Princeton University Press, Princeton.

Krueger, A. O. (1978), Foreign Trade Regimes and Economic Development: Liberalization Attempts and Consequences, Ballinger Press for National Bureau of Economic Research, Cambridge.

Krueger, A. O., H. B. Lary, T. Monson and N. Akrasanee, eds. (1981), Trade and Employment in Developing Countries, Vol. 1, Individual Studies, The University of Chicago Press for National Bureau of Economic Research, Chicago.

Krueger, A. O. (1983), Trade and Employment in Developing Countries: Synthesis and Conclusions, The University of Chicago Press for National Bureau of Economic Research, Chicago.

Laird, S. and J. Nogues (1988), "Trade Policies and the Debt Crisis," PPR Working Papers, No. 99, The World Bank, Washington, D.C.

Laird, S. and A. Yeats (1987a), "Empirical Evidence Concerning the Magnitude and Effects of Developing Country Tariff Escalation," The Journal of Developing Economies, Vol. 25, No. 2, pp. 99-123.

Laird, S. and A. Yeats (1987b), "On the Potential Contribution of Trade Policy Initiatives for Alleviating the International Debt Crisis", Journal of Economics and Business, Vol. 39, No. 3, pp. 209-224.

Laird, S. and A. Yeats (1988a), "A Note on the Aggregation Bias in Current Procedures for the Measurement of Trade Barriers," Bulletin of Economic Research, Vol. 40, No. 2, pp. 133-143.

Laird, S. and A. Yeats (1988b), "Trends ir Non-tariff Barriers of Developed Countries: 1966 to 1986", PPR Working Papers, No. 137, The World Bank, Washington, D.C.

Langhammer, R. (1983), "Sectoral Profiles of Import Licensing in Selected Developing Countries and their Impact on North-South and South-South Trade Flows," Konjunkturpolitik (Verlag Duncker & Humbolt, Berlin), Vol. 29, pp. 21-32.

Langhammer, R. (1987), "Effects of Preferential Tariff Reductions among Developing Countries", in O. Havrylyshyn, ed. (1987), pp. 71-90 (originally Kiel Working Paper No. 167, 1983).

Lary, H. B. (1968), Imports of Manufactures from Less Developed Countries, Columbia University Press, New York.

Lewis, A. (1980), "The Slowing Down of the Engine of Growth," American Economic Review, Vol. 70, No. 4, pp. 555-564.

Linder, S. B. (1961), An Essay on Trade and Transformation, Stockholm.

Linder, S.B. (1967), Trade and Trade Policy for Development, Pall Mall Press, London.

Michaely, M.. A. Choksi and D. Papageorgiou (1989), "The Design of Trade Liberalization", Finance and Development, Vol. 26, No. 1, pp. 2-5, The World Bank, Washington, D.C. (summary of seven volumes forthcoming under the title "Liberalizing Foreign Trade", by Basil Blackwell).

Nogues, J. (1983), "Alternative Trade Strategies and Employment in the Argentine Manufacturing Sector," World Development, Vol. 11, No. 12, pp. 1029-1042.

Nogues, J., A. Olechowski and A. Winters (1986), "The Extent of Non-Tariff Barriers to Imports of Industrial Countries", The World Bank Economic Review, Vol. 1, No. 1, Washington. D.C.

Thomas, H.C. (1988), A Study of Trade among Developing Countries, 1950-1980: An Appraisal of the Emerging Pattern, North-Holland, Amsterdam.

Thomas, V. (1989), "Developing Country Experience in Trade Reform" (mimeo), paper prepared for the World Bank symposium on "Adjustment Lending and Beyond", April 6-7, 1989, The World Bank, Washington, D.C.

Tuong, H-D. and A. Yeats (1980), "On Factor Proportions as a Guide to the Future Composition of Developing Country Exports", Journal of Development Economics, Vol. 7, pp. 521-539.

UNCTAD (1968), The Kennedy Round Estimated Effects on Tariff Barriers (TD/6/Rev.1), New York

UNCTAD (1982), Assessment of the Results of the Multilateral Trade Negotiations (TD/B/778/Rev.1), New York.

Yeats, A. (1989), "Shifting Patterns of Comparative Advantage: Manufactured Exports of Developing Countries", PPR Working Papers, No. 165, The World Bank, Washington, D.C., also a revised version in The Developing Economies, Vol. 27, No. 2, pp. 109-145.

APPENDIX I

DATA ON TARIFFS, PARA-TARIFFS AND NON-TARIFF MEASURES OF DEVELOPING COUNTRIES

Data on tariffs, para-tariffs and non-tariff measures (NTMs) were compiled and computerized by the UNCTAD Data Base on Trade Control Measures based on published official national sources. Initially the data set was targeted to be up to date as of December 31, 1985. As some of the countries concerned verified their respective data, some changes which occurred during 1986-87 were also incorporated.

Trade control measures (TCMs), i.e., tariffs, para-tariffs and NTMs covered by the current analysis are listed in Table AI.1 below. This is not an exhaustive list of TCMs applied in the countries concerned but only those measures on which consistent data across products and countries were available. Whether a certain type of TCM was applied per tariff-line in a product specific manner and/or across the board is also denoted. In the current study, the measure was excluded when its application was across the board.

Tariffs are considered to consist of customs duties and include fiscal duties when such exist. 1/ Many countries have a general tariff rate and an MFN (Most Favored Nation) rate, for certain cases the rates are bound under GATT and occasionally there are temporarily reduced rates. Furthermore, there exist preferential rates within economic integration groupings. Ideally the actual applied tariff rates - which may vary according to the trade partners - give the accurate picture of tariff protection. However, to determine which rate a country actually applies to its various trade partners necessitates a major study. 2/ Also, given the obvious difficulty to draw a unique profile based on various applied rates, a simplificatiton had to be made for the analysis and presentation. All preferential rates applied in economic groupings - for which data are anyway sparse - were disregarded. From the remaining tariff rates, it was assumed that the lowest rate a country applied to any of its trade partners was the actual MFN rate. 3/

In most developing countries, in addition to tariffs proper, there are a number of other charges on imports, so called the para-tariffs. In the present study, the additional import charges on which consistent data could be compiled consist of customs surcharge and surtax, stamp tax, other fiscal

---

1/ In a number of countries, mainly for administrative reasons, tariffs are split into customs duties and fiscal duties.

2/ Cf. the GATT Tariff Study which covers only major developed market economy countries.

3/ The justification for this simplification is that most of the trading partners of almost all countries enjoy MFN treatment. This also covers the temporarily reduced rates which are usually applied on an MFN basis.

Table AI.1: TRADE CONTROL MEASURES COVERED BY THE STUDY /a

TARIFFS:

- Customs Duties and Fiscal Duties /b
  - General rates
  - MFN rates
  - Rates Bound under GATT
  - Rates Reduced or Suspended

PARA-TARIFFS:

- Additional Fiscal Charges
  - Customs Surcharge and Surtax /c
  - Stamp Duty /c
  - Additional Fiscal Charges n.e.s. /c
- Other Taxes on Imports
  - Tax on Foreign Exchange Transaction /c

NON-TARIFF MEASURES (NTMs):

- Restrictive Licensing
  - Discretionary Licence /c
  - Special Import Authorization
  - Licence for Selected Purchasers
- Quotas
  - Globalm Quota
  - Quota n.e.s. /c
- Prohibition
  - Total Prohibition
  - Temporary Prohibition
  - Suspension of Issuance of Import Licences
  - Prohibition n.e.s.
- Money and Finance Measures
  - Advance Import Deposit /c
  - Foreign Exchange Licences, Authorizations, Permits, Visas
  - M & F Measures n.e.s. /c
- Control of Price Level
  - Customs Valuation in form of Fixed Unit Values
- Single Channel for Imports
  - State Trading Monopoly
  - Sole Importing Agency

Source: "The Profile of Protection in Developing Countries", Erzan et al (1987), based on UNCTAD Data Base on Trade Control Measures.

Notes:

a/ This is not an exhaustive list of trade control measures in the countries concerned. It is confined to measures on which consistent data were available and therefore were included in the analysis.

b/ When for a product more than one of the rates listed existed, only the lowest of the rates was considered in the analysis.

c/ Trade control measures which were applied across the board in some countries (in others on a product specific basis). In the current analysis, the measure was excluded when its application was across the board

charges and tax on foreign exchange transactions. Since distinctions between tariffs and para-tariffs are of an institutional nature and their economic effects are the same, all these charges could be added up to give a better proxy for protection by tariff-like measures. 4/

For the analysis in the current study, tariffs and para-tariffs are added up and referred to, alternatively, as import duties or total import charges.

All TCM data were initially compiled at the national tariff-line level, then concorded with the most detailed level of the Customs Co-operation Council Nomenclature (CCCN): i.e. 4-digit plus up to 2 alphabetic codes. 5/ In the primary country specific computations concerning tariffs and para-tariffs, simple averages were used to arrive at the average rates for each CCCN item. 6/ In cases where specific, as opposed to ad valorem duties applied, the tariff-line(s) was excluded from the average. 7/ The averages obtained for CCCN items accordingly were further compressed into SITC revision 2, 2-digit product groups, again by taking their arithmetic averages. 8/

A narrow and a broader definition of NTMs were used in the study. The narrow definition consisted of quantitative restrictions, i.e. restrictive licensing, quotas and prohibition. The broader definition included money and finance measures, control of price level and single channel for imports.

4/ On the other hand, the institutional differences between tariffs and para-tariffs are not unimportant. While tariffs have been traditionally the subject of trade negotiations and were strictly monitored, para-tariffs fell in the grey area where national governments had somewhat freer hands.

5/ The CCCN proper has 4-digits. The alphabetical subdivisions are the 1975 recommendations of the CCC. Together with the alphabetical subdivisons, the classification has 1832 items.

6/ An alternative method to arithmetic means would be trade weighted averages. However, for most developing countries trade data at the tariff-line level are not available. Furthermore, averages using current trade weights are biased due to the depressing effects of trade restrictions on imports. For a discussion of aggregation biases in the computation of tariff averages, see Laird and Yeats (1988a).

7/ On the average, only 1.7 percent of the tariff positions of the countries considered had specific rates or rates with specific components. This ratio was 16 percent in one country, around 5 percent in some and below 1 percent in others.

8/ SITC rev.2 rather than rev.1 was used due to the fact that the concordance between CCCN and SITC rev.2 is much superior than that with rev.1. At the 2-digit level, SITC rev.2 contains 69 product groups.

NTMs in developing countries are, in principle, non-discriminatory. It is very rare that the legislations on NTMs specify partner countries. Also, the type of NTMs most commonly used are of a general nature and hence are not pointed to individual suppliers. For instance, measures such as voluntary export restraints (VERs) are practically non-existent.

The frequency of NTMs in a product group was employed in the study as an indicative measure. This was calculated by first computing the percentage of tariff-lines in a CCCN item covered by a certain type of NTM, counting overlapping NTMs only once. If, for instance, two tariff lines corresponded to one CCCN item, this coverage ratio could theoretically take the values of 0, 50 or 100 percent. Then these ratios were aggregated for 2-digit SITC product groups by taking their arithmetic averages.

It should be noted that as the effects of various NTMs and their application can differ from product to product and case to case, the NTM frequency count does not necessarily relate to the actual restrictiveness of these barriers.

APPENDIX II

TRENDS IN THE SHARE OF DEVELOPING COUNTRIES' EXPORTS GOING TO DEVELOPING COUNTRIES: 1965-1985

STATISTICAL TABLES, GRAPHS AND TREND REGRESSION ESTIMATIONS

APPENDIX II

Table AII.1: SHARE OF DEVELOPING COUNTRIES' EXPORTS GOING TO DEVELOPING COUNTRIES; EXPORTERS BY GEOGRAPHICAL REGIONS /a 1965-85
(percent)

	ALL GOODS							MANUFACTURES/b								
Year	Sub-Saharan Africa	North Africa & Middle East	Southern Europe	Asia	Latin America	All Developing	(All Developing, in volume /c)	Sub-Saharan Africa	North Africa & Middle East	Southern Europe	Asia	Latin America	All Developing	(All Developing, in volume /c)	Memorandum Item: GDP Growth Industrial Countries	Memorandum Item: GDP Growth Developing Countries
1965	13	14	17	32	19	21	(18)	18	46	22	36	22	29	(30)	5.0	5.1
1966	12	15	16	33	19	21	(19)	12	40	22	36	21	27	(29)	5.0	5.2
1967	13	14	15	32	18	20	(18)	13	40	18	33	23	27	(27)	3.5	2.1
1968	13	14	16	32	19	20	(18)	14	29	17	33	23	26	(26)	5.5	4.9
1969	14	17	14	31	19	21	(19)	16	48	16	31	23	27	(28)	5.4	8.9
1970	16	16	15	30	19	21	(19)	21	39	17	31	23	27	(27)	3.4	11.9
1971	17	18	15	30	19	21	(20)	22	41	17	29	23	27	(27)	3.6	6.1
1972	18	18	14	28	20	21	(20)	23	39	14	26	28	26	(26)	5.1	5.1
1973	18	19	16	27	21	21	(20)	20	37	16	26	27	25	(25)	5.7	6.9
1974	14	20	19	28	23	22	(21)	21	43	18	27	33	29	(29)	0.7	5.3
1975	17	21	21	30	22	23	(23)	26	48	23	29	36	32	(32)	-0.3	4.5
1976	18	23	18	28	23	24	(23)	27	48	20	27	33	30	(30)	4.7	4.8
1977	19	20	22	30	23	23	(23)	24	52	22	29	33	31	(31)	3.4	5.9
1978	16	21	23	30	23	24	(23)	17	47	22	29	29	29	(29)	4.1	6.0
1979	16	22	21	30	25	24	(24)	20	39	21	30	36	31	(31)	3.1	5.0
1980	13	23	21	32	26	25	(25)	23	48	22	33	32	33	(33)	1.3	5.3
1981	18	24	26	32	29	27	(27)	25	52	26	31	38	34	(34)	2.0	3.3
1982	17	29	28	36	25	30	(30)	24	52	29	35	31	35	(35)	-0.4	2.3
1983	11	31	25	36	22	29	(29)	19	45	27	34	26	32	(32)	2.8	2.4
1984	17	33	29	34	27	31	(31)	31	61	28	32	30	33	(33)	4.5	5.2
1985	19	39	26	36	24	32	(32)	36	60	26	34	32	34	(34)	3.0	5.1

Sources: Trade: Trade Matrix Software and Data Base, UN, DIESA; GDP: ANDREX Data Base, the World Bank.

Table AII.1 cont'd

Notes:

/a In the closed world trade matrix there are 79 (mutually exclusive) countries/country groups. Developing countries are defined as all countries other than OECD (excluding Turkey), Socialist Eastern Europe (excluding Romania and Yugoslavia), Israel and South Africa. The 48 developing countries/country groups are sorted by geographical regions as the following:

Sub-Saharan Africa
Ethiopia
Gabon
Ghana
Kenya
Nigeria
Sudan
Africa least developed
Other Africa

North Africa and Middle East
Algeria
Egypt
Iran
Iraq
Kuwait
Libya
Morocco
Saudi Arabia
Tunisia
Other West Asia oil exporters
West Asia oil importers

Southern Europe
Romania
Turkey
Yugoslavia

Asia
China
Hong Kong
India
Indonesia
Korea (Rep. of)
Malaysia
Pakistan
Philippines
Singapore
Taiwan
Thailand
Other Socialist Asia
South East Asia least developed
Other South East Asia

Latin America
Argentina
Bolivia
Brazil
Chile
Colombia
Ecuador
Mexico
Paraguay
Peru
Uruguay
Venezuela
Caribbean and Central America

/b Manufactures: SITC 5 to 9.
/c Shares based on constant 1980 US$ values.

APPENDIX II

Table AII.2: SHARE OF SELECTED DEVELOPING COUNTRIES' MANUFACTURED EXPORTS GOING TO DEVELOPING COUNTRIES, 1965 - 1985

(percent)

Year	Rwanda	Tunisia	Turkey	Yugoslavia	China	India	Pakistan	Hong Kong	Korea	Singapore	Taiwan	Indonesia	Malaysia	Philippines	Thailand	Argentina	Brazil	Chile	Mexico
1965	19	35	6	28	59	30	53	20	20	81	47	15	24	6	30	32	43	10	19
1966	20	23	7	24	61	26	46	19	13	84	43	17	27	7	55	35	35	8	20
1967	18	26	7	19	61	24	40	19	17	82	43	44	23	8	13	42	37	8	22
1968	14	24	20	19	62	26	46	17	14	79	34	50	33	8	11	41	39	9	18
1969	14	26	24	18	60	29	39	15	14	73	29	44	33	14	12	45	35	9	22
1970	17	35	21	17	60	37	36	16	11	66	28	60	35	17	19	48	41	9	22
1971	18	23	22	16	63	32	36	15	13	64	27	34	34	19	16	56	33	11	22
1972	15	25	19	12	56	26	36	15	12	53	18	19	32	18	22	52	32	20	23
1973	14	25	22	17	55	25	44	15	12	46	16	29	35	21	27	56	33	21	16
1974	18	36	23	18	51	30	38	17	14	47	19	34	31	17	27	59	36	23	24
1975	24	28	25	21	57	33	47	18	17	49	24	37	29	15	27	63	40	25	23
1976	22	20	21	18	56	33	38	15	19	48	22	38	29	14	30	55	34	33	21
1977	22	13	20	24	58	35	40	18	25	47	23	33	26	15	25	53	35	35	22
1978	23	17	24	21	58	32	36	18	23	49	19	38	26	17	27	46	38	28	21
1979	23	16	23	19	56	28	32	18	25	50	22	57	26	19	28	49	43	34	18
1980	22	20	31	20	56	30	37	21	31	49	26	54	27	23	33	46	48	29	14
1981	27	28	53	20	54	23	38	22	33	50	13	57	35	22	36	49	52	31	15
1982	26	11	64	22	57	20	42	21	22	53	38	68	31	21	40	46	43	27	12
1983	22	25	50	24	54	19	54	26	31	50	25	56	31	19	35	44	41	18	6
1984	30	28	43	20	57	27	38	26	29	47	22	59	30	22	33	46	39	30	5
1985	26	18	40	18	61	22	32	33	28	46	23	42	40	17	36	51	41	37	3

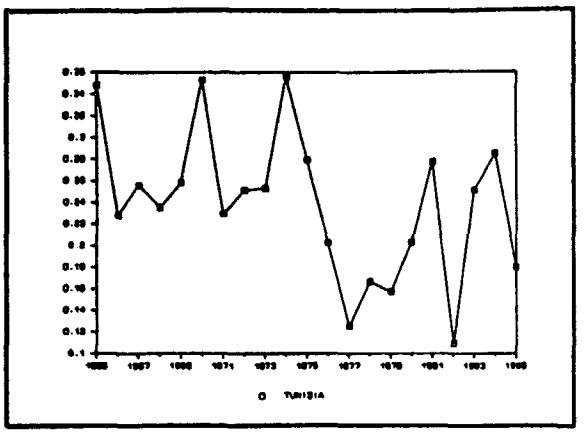
Source: Trade Matrix Software and Data Base, UN, DIESA.

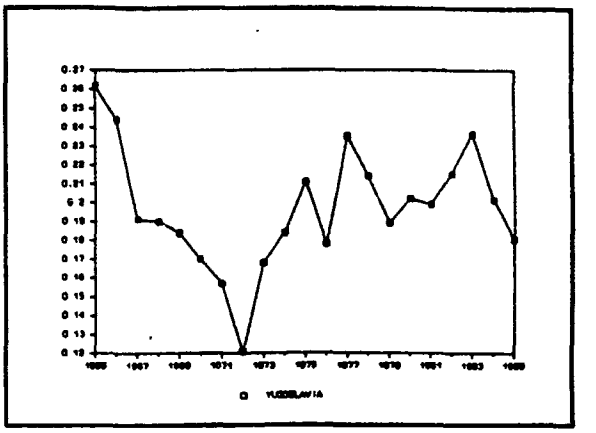
Note: Manufacturers defined as SITC 5 to 9.

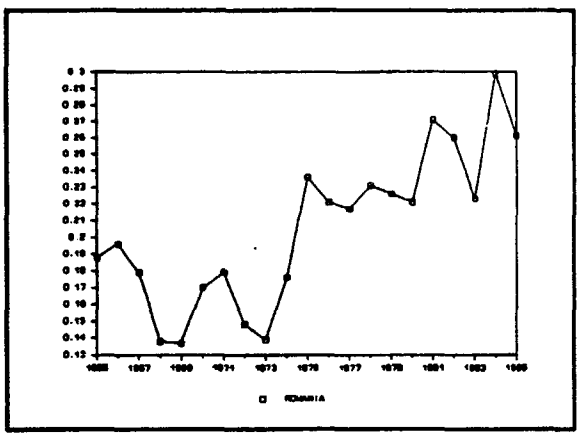
JMT/RF-T-02R

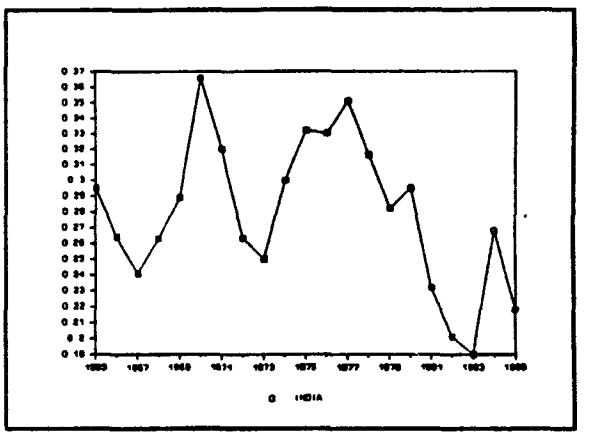
APPENDIX II

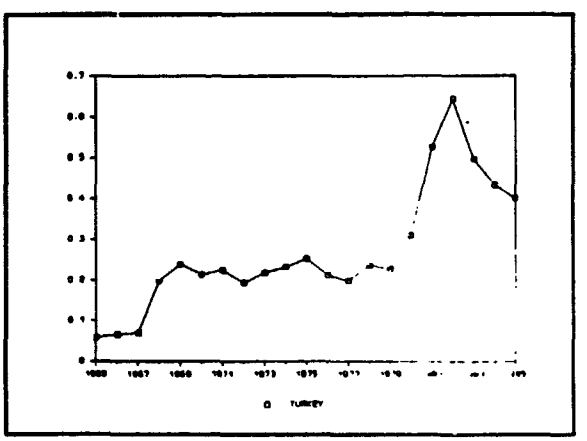
Figure AII.1: SHARE OF SELECTED DEVELOPING COUNTRIES' MANUFACTURED EXPORTS GOING TO DEVELOPING COUNTRIES, 1965-1985











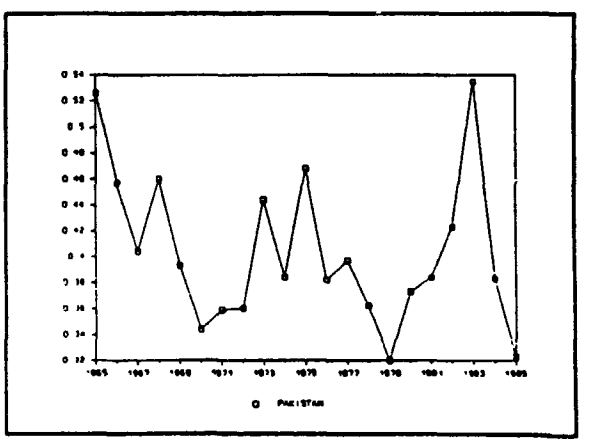
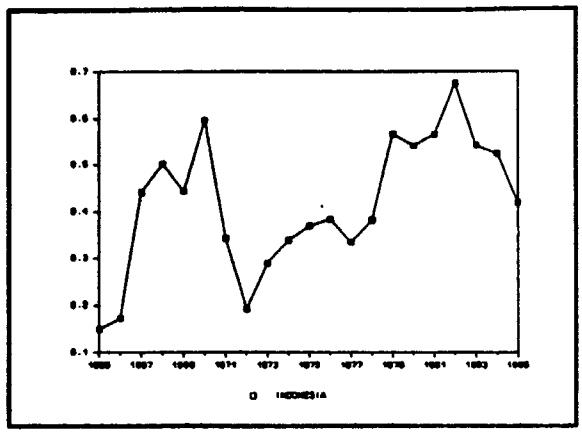
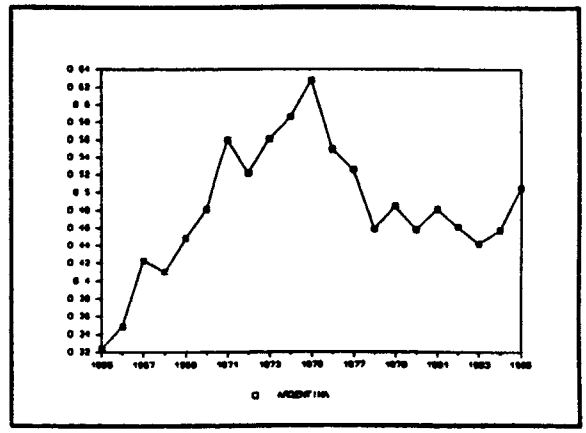
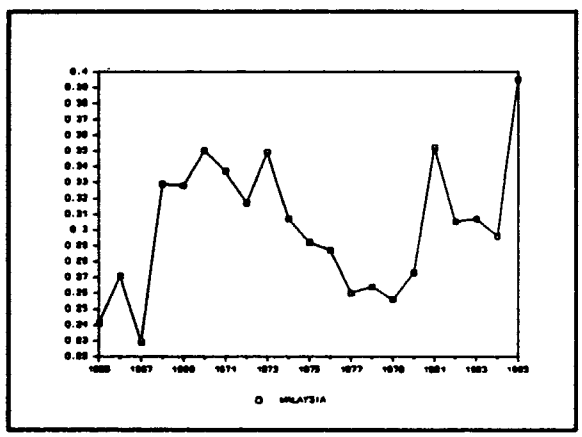
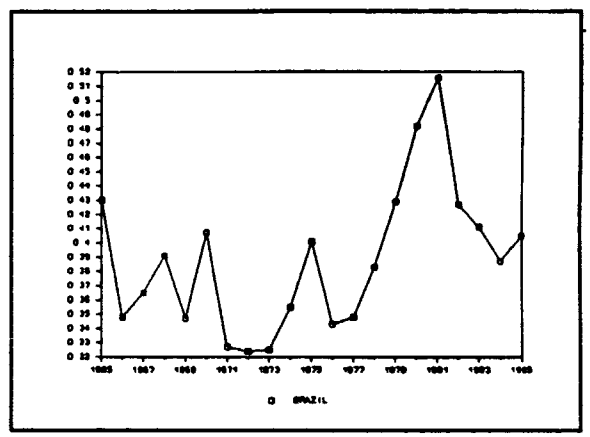


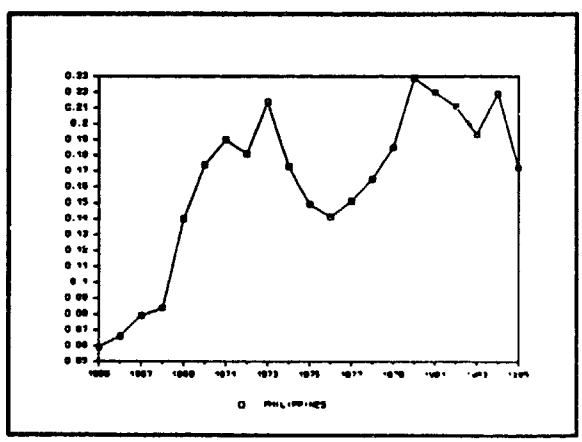
Figure AII.1 cont'd.











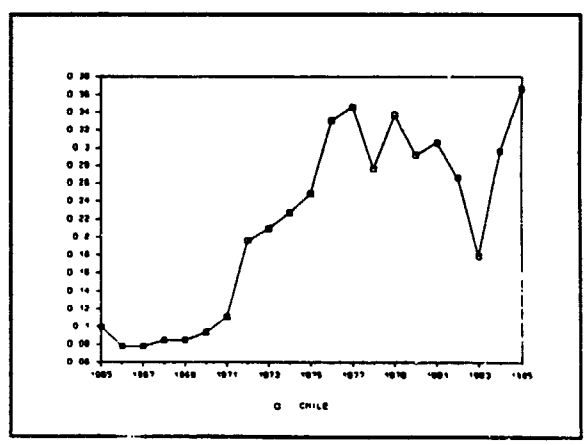
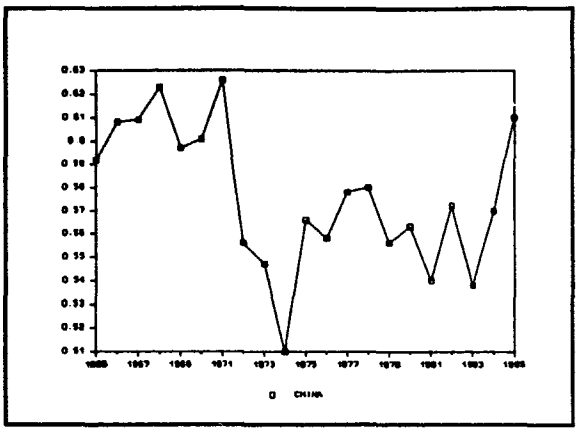
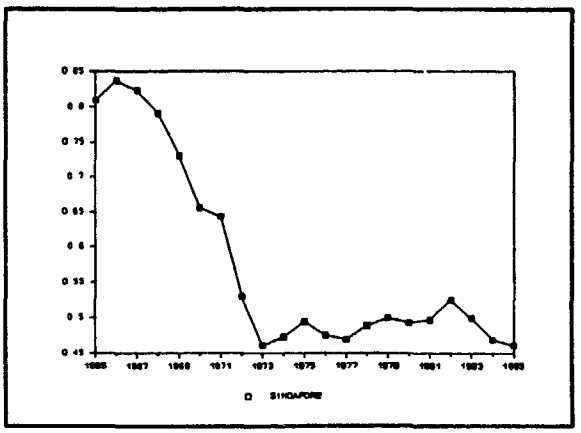
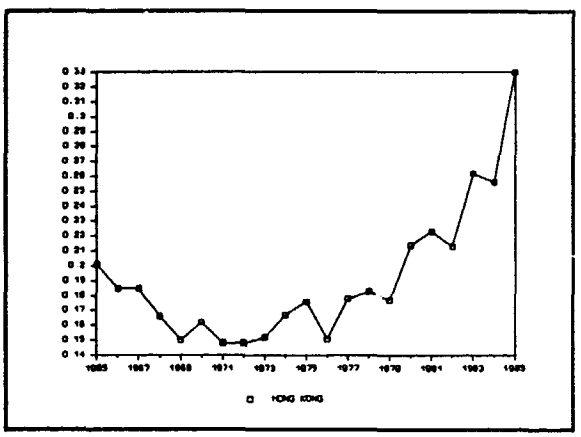
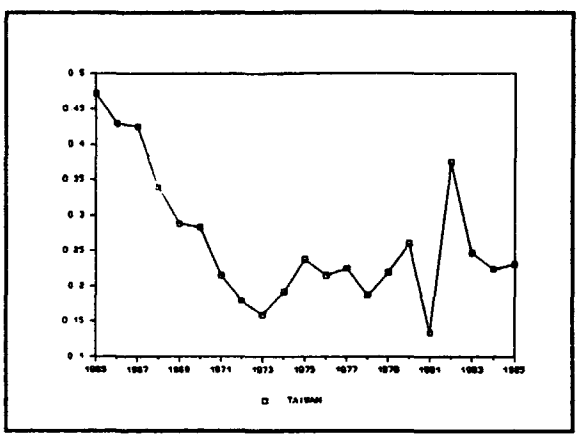


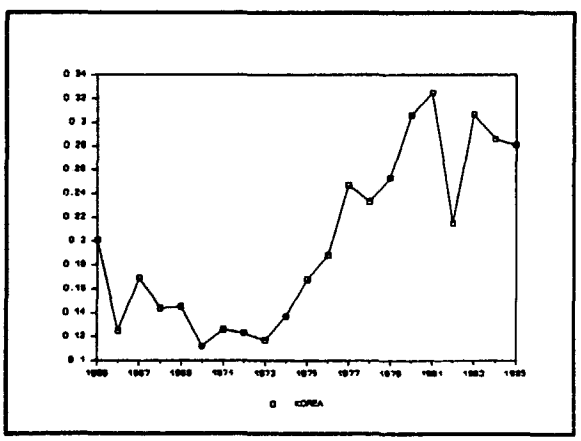
Figure AII.1 cont'd.











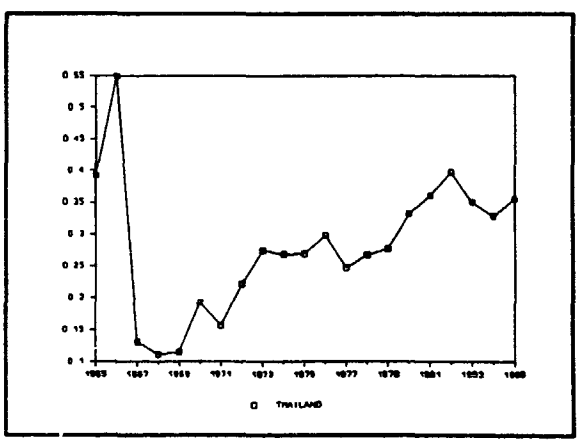
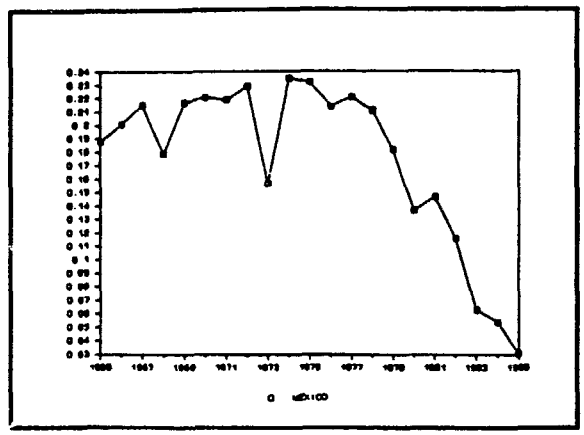


Figure AII.1 cont'd.



Source: Trade Matrix Software and Data Base, UN, DIESA.

Note: Manufactures defined as SITC5 to 9. See table AII.2 in the Appendix for the data.

APPENDIX II

Table AII.3: TREND ANALYSIS OF THE SHARE OF DEVELOPING COUNTRIES' EXPORTS GOING TO DEVELOPING COUNTRIES; EXPORTERS BY GEOGRAPHICAL REGIONS, 1965-1985

(In parentheses | t | values; a,b,c and d denote respectively 10, 5, 2.5 and 1 percent significance level)

A. ALL GOODS

Dependent variable:	1965-1985					1965-1973					1974-1985				
Logarithm of export share	Constant	Time	[Average annual change, %]	R^2	F	Constant	Time	[Average annual change, %]	R^2	F	Constant	Time	[Average annual change, %]	R^2	F
Sub-Saharan Africa	-1.98 (27.93)d	0.011 (1.87)b	[1.1]	0.11	3.51	-2.19 (46.60)d	0.054 (6.51)d	[5.5]	0.84	42.43	---------- No trend ----------				
North Africa & Middle East	-2.06 (52.97)d	0.046 (14.19)d	[4.5]	0.91	201.38	-2.03 (54.82)d	0.039 (6.00)d	[4.0]	0.81	35.95	-2.24 (16.71)d	0.055 (6.40)d	[5.7]	0.79	42.1
Southern Europe	-2.02 (39.20)d	0.034 (8.32)d	[3.4]	0.77	69.30	-1.80 (45.87)d	-0.015 (2.22)b	[-1.5]	0.33	4.92	-2.02 (18.99)d	0.036 (5.33)d	[3.7]	0.71	28.37
Asia	-1.23 (33.76)d	0.006 (2.01)b	[0.6]	0.13	4.02	-1.08 (56.31)d	-0.022 (6.17)d	[-2.2]	0.82	38.05	-1.53 (25.96)d	0.025 (6.63)d	[2.5]	0.80	43.96
Latin America	-1.73 (53.85)d	0.020 (7.66)d	[2.0]	0.74	58.74	-1.71 (66.85)d	0.011 (2.33)b	[1.1]	0.36	5.43	-1.59 (16.65)d	0.011 (1.61)a	[1.1]	0.13	2.58
All Developing	-1.69 (66.06)d	0.023 (11.05)d	[2.3]	0.86	122.05	-1.59 (133.81)d	0.005 (2.33)b	[0.5]	0.36	5.41	-1.90 (37.68)d	0.036 (11.22)d	[3.7]	0.92	125.97

B. MANUFACTURES

Sub-Saharan Africa	-1.92 (22.36)d	0.032 (4.61)d	[3.3]	0.50	21.25	-2.09 (16.86)d	0.067 (3.06)d	[6.9]	0.51	9.35	-1.80 (6.82)d	0.023 (1.79)a	[2.3]	0.08	1.96
North Africa & Middle East	-1.003 (17.23)d	0.018 (3.94)d	[1.8]	0.62	15.54	---------- No trend ----------					-1.023 (7.16)d	0.020 (2.26)c	[2.0]	0.27	5.09
Southern Europe	-1.83 (26.07)d	0.023 (4.15)d	[2.3]	0.45	17.23	-1.50 (24.77)d	-0.049 (4.58)d	[-4.8]	0.71	20.99	-1.97 (18.67)d	0.036 (5.10)d	[3.5]	0.69	26.02
Asia	---------- No trend ----------					-0.96 (42.50)d	-0.043 (10.78)d	[-4.2]	0.94	116.18	-1.52 (24.70)d	0.021 (5.54)d	[2.1]	0.73	30.69
Latin America	-1.51 (75.72)d	0.022 (4.79)d	[2.2]	0.52	22.99	-1.59 (40.36)d	0.029 (4.20)d	[2.9]	0.67	17.60	-0.97 (6.92)d	-0.010 (1.17)	[-1.0]	0.03	1.37
All Developing	-1.38 (49.17)d	0.014 (6.22)d	[1.4]	0.65	38.69	-1.26 (60.08)d	-0.012 (3.28)d	[-1.2]	0.55	10.76	-1.34 (22.48)d	0.013 (3.35)d	[1.3]	0.48	11.20

Source: Trade Matrix Software and Data Base, UN, DIPSA.

Note: OLSQ estimates for $\log y = \log a + t \log b$ derived from the expression $y = ab^t$ where y stands for export share and t for time. Average annual change is computed from the estimated coefficient for t, i.e., log b. All regression equations with any explanatory power are reported. Manufactures are defined as SITC 5 to 9. See table AII.1 in the Appendix for the data.

Table AII.4: TREND ANALYSIS OF THE SHARE OF SELECTED DEVELOPING COUNTRIES' MANUFACTURED EXPORTS GOING TO DEVELOPING COUNTRIES, 1965-1985

(in parentheses | t | values: a,b,c and d denote respectively 10, 5, 2.5 and 1 percent significance level)

Dependent variable:	1965-1985					1965-1973					1974-1985				
Logarithm of export share	Constant	Time	[Average annual change, %]	$\bar{R}^2$	F	Constant	Time	[Average annual change, %]	$\bar{R}^2$	F	Constant	Time	[Average annual change, %]	$\bar{R}^2$	F
Romania	-1.92 (27.97)d	0.029 (5.24)d	[2.9]	0.57	27.41	-1.16 (18.32)d	-0.031 (1.90)b	[-3.1]	0.25	3.61	-1.88 (14.66)d	0.028 (3.42)d	[2.8]	0.49	11.71
Tunisia	-1.23 (9.39)d	-0.022 (2.13)c	[-2.2]	0.15	4.55	---------- No trend ----------					---------- No trend ----------				
Turkey	-2.43 (15.70)d	0.087 (7.02)d	[9.1]	0.71	49.27	-2.84 (10.74)d	0.180 (3.84)d	[19.7]	0.63	14.74	-2.51 (7.07)d	0.089 (3.97)d	[9.3]	0.57	15.74
Yugoslavia	---------- No trend ----------					-1.33 (15.21)d	-0.073 (4.70)d	[-7.0]	0.72	22.05	---------- No trend ----------				
China	-0.51 (22.98)d	-0.004 (2.16)c	[-0.4]	0.16	4.68	-0.47 (15.58)d	-0.009 (1.75)a	[-0.9]	0.20	3.06	-0.66 (11.69)d	0.005 (1.50)a	[0.5]	0.10	2.24
India	-1.17 (15.43)d	-0.011 (1.77)b	[-1.1]	0.10	3.14	---------- No trend ----------					-0.60 (3.36)d	-0.045 (4.02)d	[-4.4]	0.58	16.13
Pakistan	-0.84 (13.44)d	-0.007 (1.36)a	[-0.7]	0.04	1.84	-0.73 (8.39)d	-0.032 (2.08)b	[-3.1]	0.29	4.35	---------- No trend ----------				
Hong Kong	-1.93 (26.24)d	0.023 (3.94)d	[2.3]	0.42	15.51	-1.61 (41.54)d	-0.038 (5.46)d	[-3.7]	0.78	29.79	-2.47 (19.69)d	0.057 (7.26)d	[5.9]	0.82	52.69
Korea, Rep. of	-2.17 (20.47)d	0.045 (5.36)d	[4.6]	0.58	28.70	-1.73 (17.20)d	-0.051 (2.85)c	[-5.0]	0.47	8.13	-2.34 (10.13)d	0.058 (4.00)d	[6.0]	0.58	16.02
Singapore	-0.25 (4.38)d	-0.029 (6.45)d	[-2.9]	0.67	41.59	-0.02 (0.34)	-0.071 (6.83)d	[-6.9]	0.87	46.61	---------- No trend ----------				
Taiwan	-1.09 (8.12)d	-0.027 (2.51)c	[-2.7]	0.21	6.29	-0.53 (10.14)d	-0.142 (15.39)d	[-13.2]	0.97	236.85	---------- No trend ----------				

Table AII.4 cont'd

Dependent variable:	1965-1985					1965-1973					1974-1985				
Logarithm of export share	Constant	Time	[Average annual change, %]	R^2	F	Constant	Time	[Average annual change, %]	R^2	F	Constant	Time	[Average annual change, %]	R^2	F
Indonesia	-1.37 (8.69)d	0.038 (3.06)d	[3.9]	0.30	9.37	---------- No trend ----------					-1.46 (5.[illegible])d	0.044 (2.82)d	[4.5]	0.39	7.94
Malaysia	-1.27 (20.33)d	0.006 (1.16)	[0.6]	0.02	1.34	-1.43 (18.28)d	0.046 (3.34)d	[4.7]	0.56	11.17	-1.49 (9.84)d	0.018 (1.87)b	[1.8]	0.18	3.49
Philippines	-2.43 (19.67)d	0.049 (5.00)d	[5.0]	0.55	25.02	-3.02 (29.05)d	0.178 (9.62)d	[19.5]	0.92	92.48	-2.16 (12.04)d	0.029 (2.59)c	[2.9]	0.34	6.69
Thailand	-1.68 (9.58)d	0.030 (2.17)c	[3.0]	0.16	4.73	---------- No trend ----------					-1.69 (19.82)d	0.033 (3.99)d	[3.4]	0.58	15.94
Argentina	-0.84 (12.15)d	0.009 (1.66)a	[0.9]	0.13	2.76	-1.15 (27.34)d	0.069 (9.18)d	[7.1]	0.91	84.29	-0.34 (3.26)d	-0.023 (3.56)d	[-2.3]	0.51	12.67
Brazil	-1.05 (19.83)d	0.009 (2.10)c	[0.9]	0.15	4.42	-0.89 (14.74)d	-0.025 (2.34)b	[-2.5]	0.36	5.49	-1.15 (7.45)d	0.015 (1.60)a	[1.5]	0.12	2.56
Chile	-2.53 (18.02)d	0.078 (6.95)d	[8.1]	0.70	48.30	-2.78 (15.24)d	0.108 (3.35)d	[11.4]	0.56	11.23	---------- No trend ----------				
Mexico	-1.17 (6.42)d	-0.062 (4.29)d	[-6.0]	0.47	18.39	---------- No trend ----------					0.59 (1.56)a	-0.170 (7.07)d	[-15.6]	0.82	49.96

Source: Trade Matrix Software and Data Base, UN, DIESA.

Note: OLSO estimates for log y = log a + t log b derived from the expression $y = ab^t$ where y stands for export share and t for time. Average annual change is computed from the estimated coefficient for t, i.e., log b. All regression equations with any explanatory power are reported. Manufactures are defined as STTC 5 to 9. See table AII.2 in the Appendix for the data.

RF-T-02A

APPENDIX III

DEVELOPING COUNTRIES' INDEX OF REVEALED COMPARATIVE ADVANTAGE IN MANUFACTURES, 1983

APPENDIX III

Table AIII.1: MANUFACTURES RANKED IN DESCENDING ORDER OF DEVELOPING COUNTRIES' REVEALED COMPARATIVE ADVANTAGE, 1983

SITC	Product Group/a	Developing Countries' Exports as % of World Exports/b	Index of Revealed Comparative Advantage /c
83	Travel Goods, Handbags	58.6	4.91
84	Clothing and Accessories	49.0	4.10
85	Footwear	38.7	3.24
63	Wood, Cork Manuf. n.e.s.	36.6	3.06
61	Leather, Dressed Fur, etc.	27.6	2.31
65	Textile Yarn, Fabrics, etc.	25.8	2.16
89	Misc. Manufactured Goods n.e.s.	19.4	1.62
76	Telecomm. Sound Equipment	19.2	1.61
77	Electric Machinery n.e.s.	16.9	1.42
56	Fertilizers, Manufactured	14.9	1.25
82	Furniture, Parts Thereof	14.1	1.18
66	Nonmetal Mineral Manuf. n.e.s.	13.7	1.15
88	Photo Equip., Optical Goods, etc.	13.7	1.14
69	Metal Manufactures n.e.s.	12.9	1.08
81	Plumbing, Heating, Lighting Equipment	12.4	1.04
79	Other Transport Equipment	12.0	1.01
52	Inorganic Chemicals	10.6	0.89
62	Rubber Manufactures, n.e.s.	9.9	0.83
67	Iron and Steel	9.5	0.79
55	Perfume, Cleaning Products, etc.	8.9	0.74
57	Explosives, Pyrotech Products	8.2	0.69
75	Office Machines, Equipment	7.4	0.62
54	Medical, Pharm. Products	6.4	0.53
71	Power Generating Equipment	6.4	0.53
51	Organic Chemicals	5.3	0.44
53	Dyes, Tanning, Colour Prod.	4.9	0.41
64	Paper, Paperboard	4.5	0.37
59	Chemical Materials n.e.s.	4.2	0.35
58	Plastic Materials, etc.	4.0	0.33
73	Metalworking Machinery	3.7	0.31
72	Machines for Special Industries	3.6	0.30
74	General Industrial Machinery n.e.s.	3.5	0.29
87	Precision Instruments n.e.s.	3.3	0.28
78	Road Vehicles	2.7	0.22
All Manufactures		11.9	1.00

Source: UNSO COMTRADE Data Base.

Notes:

/a SITC Rev.2, 5 to 8 less 68, a total of 34 2-digit product groups.

/b Due to unavailability of data at this level of detail, world exports exclude Socialist Europe and Socialist Asia.

/c Developing countries' export shares in each product group divided by their total share in manufactures (11.9%).

PPR Working Paper Series

	Title	Author	Date	Contact for paper
WPS294	Irreversibility, Uncertainty, and Investment	Robert S. Pindyck	October 1989	N. Carolan 61737
WPS295	Developing Country Experience in Trade Reform	Vinod Thomas	October 1989	S. Fallon 61680
WPS296	How Serious is the Neglect of Intrahousehold Inequality?	Lawrence Haddad Ravi Kanbur	November 1989	J. Sweeney 31021
WPS297	Effects of the Multi-Fibre Arrangement on Developing Countries' Trade: An Empirical Investigation	Refik Erzan Junichi Goto Paula Holmes	November 1989	L. Tan 33702
WPS298	Evaluating Global Macroeconomic Models: A Case Study of MULTIMOD	Ahmad Jamshidi	December 1989	M. Divino 33739
WPS299	The External Effects of Public Sector Deficits	Carlos Alfredo Rodriguez	November 1989	R. Luz 61588
WPS300	How the 1981-83 Chilean Banking Crisis was Handled	Mauricio Larrain		
WPS301	Myths of the West: Lessons from Developed Countries for Development Finance	Collin Mayer	November 1989	WDR Office 31393
WPS302	Improving Support Services for Rural Schools: A Management Perspective	Sherry Keith	November 1989	J. Cheeseman 61703
WPS303	Is Undernutrition Responsive to Changes in Incomes?	Martin Ravallion	November 1989	C. Spooner 30464
WPS304	The New Political Economy: Positive Economics and Negative Politics	Merilee S. Grindle		
WPS305	World Bank Work with Non-Governmental Organizations	Lawrence F. Salmen A. Paige Eaves	December 1989	E. Madrona 61712
WPS306	A Method for Macroeconomic Consistency in Current and Constant Prices	Ali Khadr Klaus Schmidt-Hebbel		
WPS307	On the Accuracy of Economic Observations: Do Sub-Saharan Trade Statistics Mean Anything	Alexander J. Yeats	November 1989	J. Epps 33710

PPR Working Paper Series

	Title	Author	Date	Contact for paper
WPS308	Harmonizing Tax Policies in Central America	Yalcin M. Baran	November 1989	T. Watana 31882
WPS309	Honduras-Public Sector Finances, Issues, and Policy Suggestions to Resolve Them	Yalcin M. Baran	November 1989	T. Watana 31882
WPS310	A Macroeconomic Consistency Framework for Zimbabwe	Ali Khadr Klaus Schmidt-Hebbel		
WPS311	Macroeconomic Performance Before and After Disinflation in Israel	Leonardo Leiderman Nissan Liviatan	November 1989	R. Luz 61588
WPS312	Improving Public Enterprise Performance: Lessons from South Korea	Mary M. Shirley	October 1989	R. Malcolm 61708
WPS313	The Evolution of Paradigms of Environmental Management in Development	Michael E. Colby	November 1989	C. Evangelista 32645
WPS314	Primary Commodity Prices and Macroeconomic Variables: A Long-run Relationship	Theodosios Palaskas Panos Varangis	November 1989	D. Gustafson 33714
WPS315	Notes on Patents, Distortions, and Development	Julio Nogués		
WPS316	The Macroeconomics of Populism in Latin America	Rudiger Dornbusch Sebastian Edwards	December 1989	R. Luz 61588
WPS317	Price and Quality Competitiveness of Socialist Countries' Exports	Zdenek Drabek Andrzej Olechowski		
WPS318	Debt Buybacks Can Indicate Sovereign Countries' Willingness to Raise Investment and Repay Debt When Partial Debt Relief is Offered: Theory and Tests	Sankarshan Acharya Ishac Diwan		
WPS319	Would General Trade Liberalization in Developing Countries Expand South-South Trade?	Refik Erzan	December 1989	G. Ilogon 33732
WPS320	Protection Facing Exports from Sub-Saharan Africa in the EEC, Japan, and the United States	Refik Erzan Peter Svedberg	November 1989	G. Ilogon 33732
WPS321	Economic and Policy Determinants of Public Sector Deficits	Jorge Marshall Klaus Schmidt-Hebbel		